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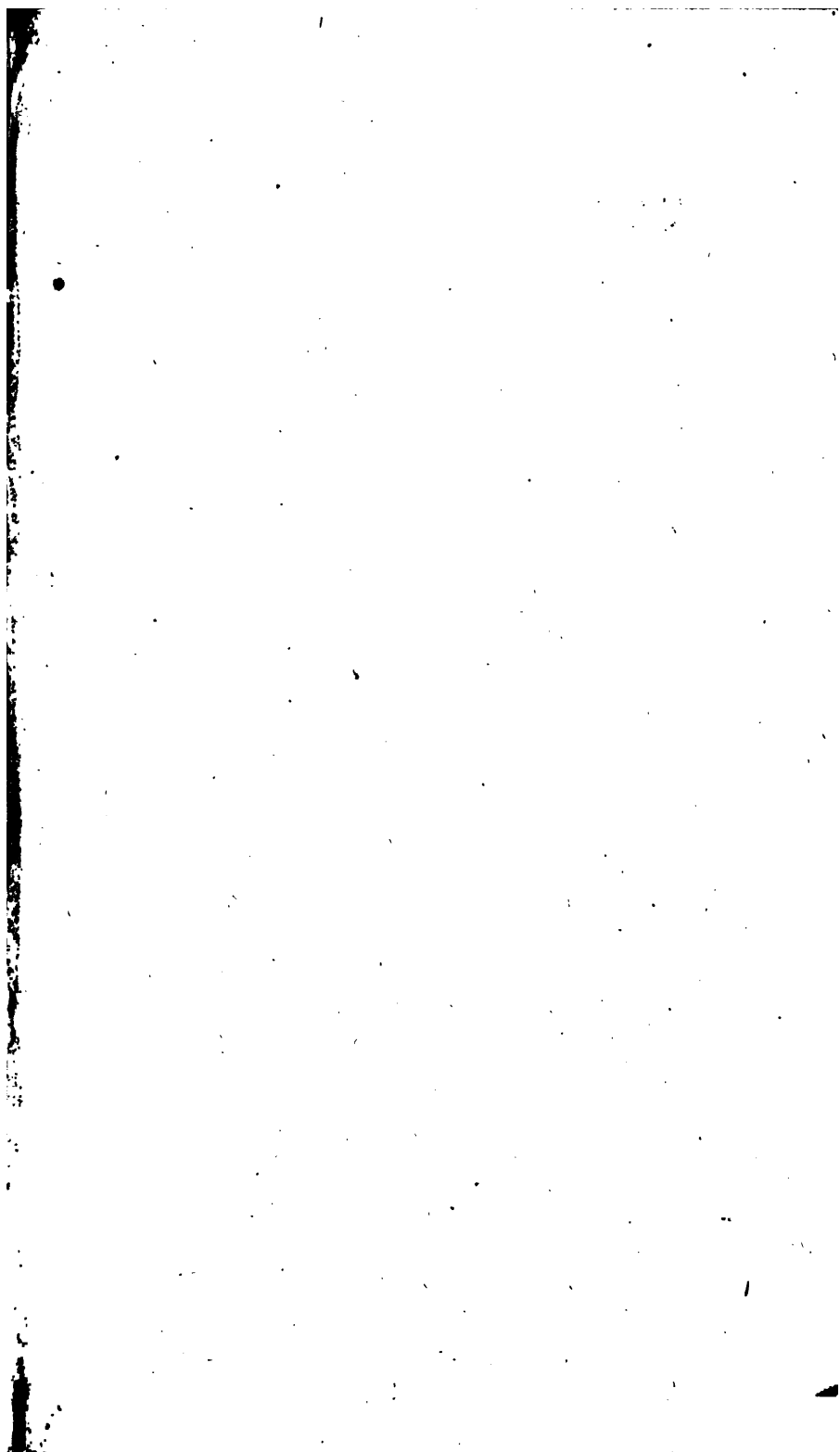
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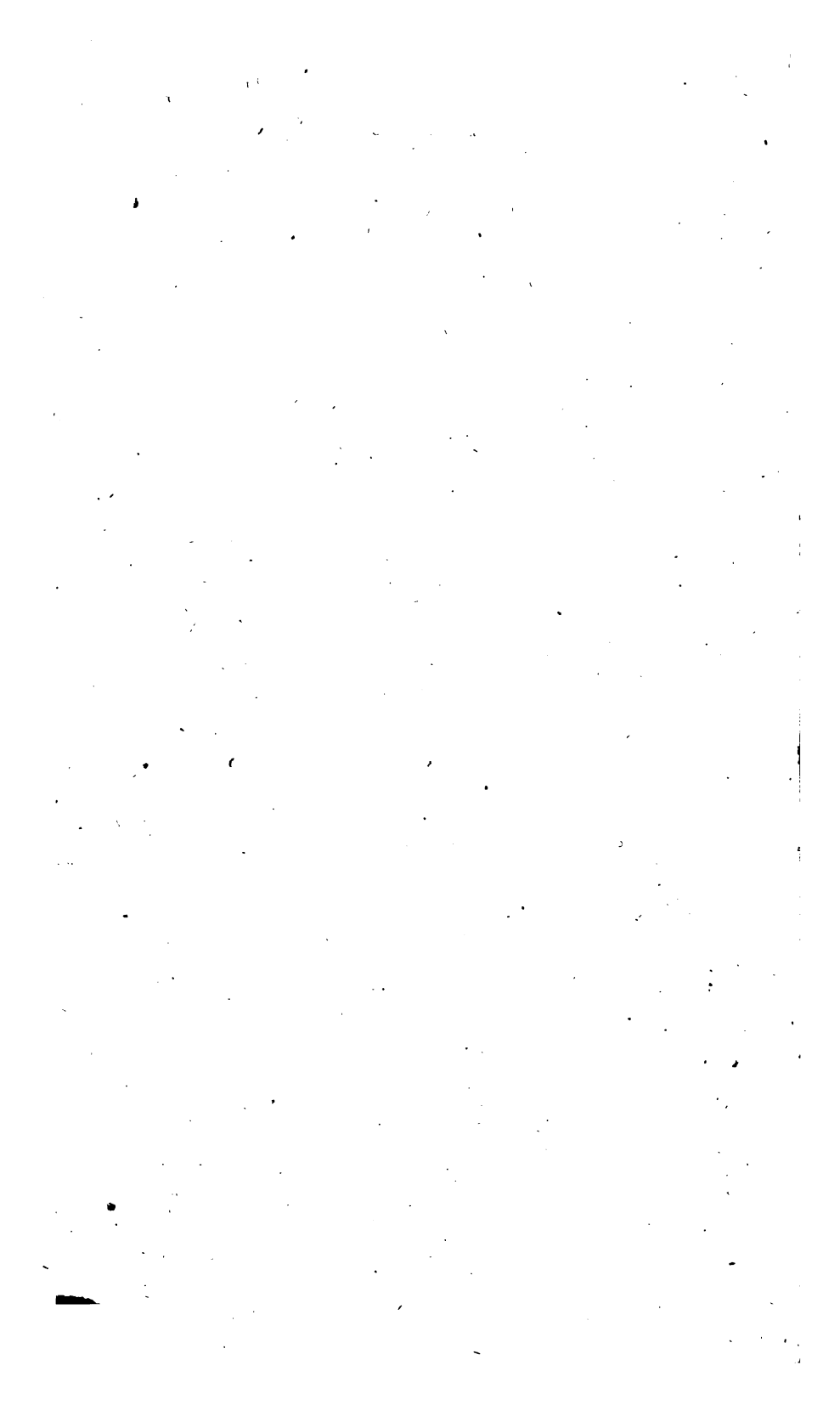
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*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Fig. 6.*

# *Professor Mackenzie's Cases of Artificial Pupil.*

*W. Mackenzie Del.*

THE  
LONDON  
MEDICAL AND PHYSICAL  
JOURNAL.

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AT THE SCHOOL IN GREAT WINDMILL STREET.

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(VOL. LVI.)  
NEW SERIES, VOL. I.

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*Et quoniam variant morbi, variabimus artes;  
Mille mali species, mille salutis erunt.*

THE FRANCIS A. COUNTRYWAY  
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# THE LONDON Medical and Physical Journal.

NO 329, VOL. LVI.]

JULY, 1826.

[NO 1, New Series.

THE LONDON MEDICAL AND PHYSICAL JOURNAL *professedly contains an account of the most important improvements which are made in Medicine and the collateral branches of Science: and it has been thought, that, in addition to the means hitherto adopted for conveying this information, considerable advantage would be deduced from giving each month a history of such CASES occurring at PUBLIC INSTITUTIONS, as might seem calculated to illustrate any points in pathology or practice. On mentioning this idea to the Physicians and Surgeons connected with some of the principal Hospitals and Dispensaries in the metropolis, the utmost readiness was manifested by these gentlemen to have an account of the cases under their care laid before the public; while every facility was promised for obtaining the necessary information. The Editor begs respectfully to express his sense of the liberality which has thus been shown by his professional brethren; and, while he absolves them from all responsibility with regard to the accuracy of the details, he pledges himself to take every means in his power of ascertaining the authenticity of the cases which he publishes: at the same time he requests it to be understood, that he will be ready to correct any misstatement, should such inadvertently be made.*

*The manner in which it appears to the Editor most eligible to arrange these, is according to subjects,—giving in succession a few cases of the same disease, particularly where there is any difference in the symptoms or treatment, the detail of which is likely to prove instructive. It is obvious that this object cannot be accomplished in every instance; but, with a view to secure its fulfilment as frequently as possible, it is intended to make the Reports retrospectively, not confining them exclusively to those cases which are of recent occurrence.*

*The reader will perceive that some other changes have been made in the contents of the Journal, which it is hoped will be regarded as improvements.*

*There is one circumstance which will be perceived with regret: it is the retirement of Mr. BACOT. The Editor, however, has pleasure in being able to state, that, although that gentleman's avocations will prevent him from taking the same responsible share as heretofore in the management of the Journal, the reader will not be entirely deprived of his valuable services.*

R. MACLEOD.

*Henrietta-street, Cavendish-square;  
June 10, 1826.*

## CASES

OBTAINED FROM PUBLIC INSTITUTIONS, AND OTHER  
AUTHENTIC SOURCES.

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### CEREBRAL AFFECTIONS.

*Fatal Case of Cerebral Affection, in which the Symptoms underwent much temporary mitigation from the formation of an Abscess in the Axilla; and in which Serous Effusion was found in the Brain, and a Tumor in the Cerebellum. Treated by Dr. P. M. LATHAM, at ST. BARTHOLOMEW'S HOSPITAL.*

SARAH DAVENPORT, ætat. thirty-five, was admitted into St. Bartholomew's Hospital, on the 22d of November, 1825. She had suffered pain in the head during eight months, but it was only during a fortnight that it had become so severe as to induce her to seek medical advice. During this period she had been treated by cupping and leeches, without benefit; and, at the time of her admission, she had a seton in the nape of her neck. It was understood that, prior to her present disorder, she had had a syphilitic complaint, for which she had been profusely salivated, and of which there was no discoverable symptom remaining.

There was something very remarkable in the first appearance of the woman: her countenance indicated much apprehension and alarm, and her gait was constrained and trembling; but there was no symptom present which denoted the least degree of paralytic affection: she rather walked like a person who is balancing a burden on the head. She exhibited many strongly-marked hysterical symptoms, which were thought to explain, but which in fact contributed to perplex, the nature of the case.

At first she was treated with purgatives (for her bowels were obstinately costive,) and fetid medicines; but the observation of a few days was enough to remove all belief of her complaint being merely hysterical. Upon more careful examination, it was found that her look of terror and her trembling gait were owing to the continual effort she was making to give steadiness to her head. She soon became permanently confined to bed, and was unable to lift her head from the pillow for the greater part of the day and night. In the mean time, her pulse was so feeble as to forbid bleeding from the arm; and, although the throbbing of the head



called for the application of leeches to the temples, and cupping glasses to the nape of the neck, the relief obtained by these remedies was too short and too insignificant to hold out a hope of effectual benefit.

It was thought right to try the effect of salivation; but she so soon lost strength under the use of mercury, that its employment was discontinued before its full constitutional impression was obtained.

After the use of oil of turpentine and of sulphate of quinine, both of which aggravated the complaint, it only remained to resort to those remedies which exercise an immediate influence upon the nervous system. Of these, conium first, and afterwards belladonna, were tried fairly, but without benefit.

It was now the middle of January: all the remedies which had been employed had failed; the severity of her pains had greatly increased; her general health was failing to such a degree, as to threaten her speedy dissolution. But now she complained of pain and tenderness in the left axilla, passing round towards the back. Upon examination, the parts were found tense and tumid. In a day or two, fluctuation was discovered; and, from an incision in the axilla, an enormous quantity of well-formed pus gushed out. The discharge of pus continued during three weeks, and amounted to more than a pint daily: it seemed to be derived from the back, and to pass out from beneath the latissimus dorsi.

During the continuance of this discharge, the pain in the head entirely ceased. The patient rose from her bed, walked about the ward, and described herself as exempt from all ailment. She was peculiarly happy, and exulted in the certainty of her restoration to health.

Perhaps it might not be thought unwarrantable to conclude, at this period of the case, that the symptoms referrible to the head, which were so entirely removed, could not depend upon permanent organic disease.

But the purulent discharge began to abate, and at length it ceased altogether; and now the patient no longer remained exempt from complaint. Her former pains returned, and threatened, by their gradual increase, to reach their former severity. Hereupon it was impossible to refrain from following what seemed to be the suggestion of nature herself, and to procure an artificial discharge as nearly as possible from the same parts where the spontaneous abscess had arisen. Accordingly, a large caustic issue was made on the inside of the left humerus, and a very copious discharge of pus maintained for a month. The symptoms, in the mean time,

became more and more severe: the issue therefore was allowed to heal.

Still the absence of all pain during several weeks seemed irreconcilable with the existence of organic disease within the cranium. It was a duty, therefore, still to attempt something for her relief. She had already taken mercury, but its use was interrupted before it had been tried fairly: she now took mercury again, until she was profusely salivated; and the salivation was maintained during several weeks, but no benefit followed.

At length, so great was the patient's agony, that all attempts to cure were postponed to the purpose of obtaining for her that relief which opium could procure. Throughout the whole of the month of May, until her death on the 1st of June, opium and purgatives were the only medicines employed. Her bowels, during the whole course of her complaint, were obstinately constipated.

The character and magnitude of this poor creature's sufferings will be best conceived from a description of her condition during the last month of her existence.

The pain, without being confined to any one part of the head, belonged more especially to the occiput; it was constantly present, but varied in degree. Each twenty-four hours were about equally divided between a greater and a less degree of suffering. About two o'clock in the morning began the period of her greatest agony, which continued until about two in the afternoon. She was generally seen by Dr. Latham about mid-day, when she presented a picture of bodily suffering carried to its most extreme degree, and it was reported that she had been exactly in the same state for eight or ten hours. She lay on one side, generally on the left, with her countenance flushed, her eyes closed, and her eyebrows, eyelids, forehead, and temples, knitted and drawn together. Her head was immoveable from one position; it was sunk down towards the shoulders, and rigidly fixed there. Her hands were clenched. To stir any muscle of the body which could induce the slightest motion of the head, immediately augmented her agony. To unclothe an eye, or to utter a single word in answer to questions put to her, was to aggravate her torture. On one occasion a gentleman, who came to see her, let an orange drop upon her pillow: immediately her agony was manifested by her seizing and tearing the pillow with her teeth.

As the evening advanced, she was able to allow the muscles of her head and face gradually to relax themselves. She opened her eyes, and could take a little liquid food. Towards

nine o'clock she began to dose, and from this time until two in the morning she obtained some sleep by snatches; when the severity of her agony began again.

She died on the 1st of June. As the period of her dissolution approached, the intervals became shorter and shorter in which she experienced any mitigation of her pain, and during the last fortnight of her existence she was in one continual agony. Three days before she died, her left leg was paralysed, but she preserved her senses and intellect to the last.

*Sectio cadaveris.*—Upon dissection, the brain and its membranes were found a little more vascular than natural. There was some effusion beneath the arachnoid, and a considerable quantity (perhaps two ounces) of serum in the lateral ventricles, and the membrane lining them was very much thickened. No other morbid appearance presented itself in any part of the brain.

At the base of the cerebellum, growing from both lobes, but in a greater degree from the left, was a tumor, which descended beneath the dura mater into the spinal canal, and reached as low as the origin of the sixth pair of cervical nerves. This tumor had the appearance and consistence of foetal brain. It grew out of the interior of the cerebellum, and seemed to form a part of it; the cerebellum in its neighbourhood being softened down to the same consistence with the tumor itself. It covered the posterior part and sides of the spinal marrow as far as it reached, and rested upon the origins of the nervus accessorius, and of all the cervical nerves as low as the sixth; but it did not involve any of them in its substance. A small portion of coagulated blood adhered to the lower extremity of the tumor.

Blood was extravasated in small quantities upon the pia mater of the spinal marrow, here and there throughout its whole course. No other disease was found in any part of the body.

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*Fatal Case of Cerebral Affection, in which Irritability of the Stomach was a prominent Symptom, and in which Tubercles were found in the Brain, and Softening in the Cerebellum. Treated by Dr. CHAMBERS, at ST. GEORGE'S HOSPITAL.*

MARGARET MILES, æt. forty; married; living in Suffolk-street; admitted into St. George's Hospital, March 22d, 1826.

Complains of severe shooting pains in the occiput, with slight puffiness of the pericranium, towards the left side; also of sickness of stomach, caused by taking any kind of

food or drink, and by being placed in an erect posture; which position likewise aggravates the pain.

No tenderness or swelling to be felt about the epigastric region, or in any part of the abdomen. Pulse ninety, soft; tongue red, smooth, and rather dry; skin cool; bowels obstinately costive; urine free; catamenia absent for three months.

She has suffered from the headache three months: it was at first better towards the evening, but has been of late constant and severe.

R. Hydr. subm. gr. vj.; Sacch. albi, gr. iij.

M. fiat pulvis statim et post horas duas sumendus.

R. Aq. Menth. Sativa, ʒiss.; Magnes. sulph. ʒiss.; Tinct.

Hyoscyami, m. x. M. fiat haust. quartâ quâque horâ sumend.  
—Beef tea.

24th.—Head somewhat relieved. Still vomits every thing she takes. Pulse eighty, soft; tongue clean and moist. Bowels opened once; motion copious, fluid, feculent, and offensive.

Hirud. viij. occipitis parti dolenti.

R. Calomel, gr. v.; Sacch. albi, gr. iij. ter die.

25th.—Much the same.

Liq. Sodæ carbon. subinde; Calomel, gr. iij. 4tis horis.

Haust. effervescens c. Tincturæ Opii, gtt. iij. 4tis horis.

April 21st.—It is needless to continue regularly the reports of this case: it will be sufficient to say, as nothing seemed to be effectual in allaying the sickness, or otherwise materially alleviating her sufferings, that, besides being placed under the full influence of mercury, she had an issue inserted over the part of the head to which she referred particularly as the seat of pain; that she had a blister applied to the epigastrium; that she took opium, both in a liquid and a solid form, most of the anodyne extracts, the subnitrate of bismuth, &c. &c. without the slightest benefit; and at length died this day, exhausted by the progressive increase of the symptoms first mentioned.

*Sectio cadaveris*, (next day).—Corpse much emaciated: its smell was peculiar, inasmuch as every part of it had distinctly the odour of feculency.

In the abdomen, no diseased appearance, except slight enlargement of a few of the mesenteric glands.

In the thorax, old adhesions of the right pleura: no other morbid change.

The head exhibited the following appearances:—On the calvarium and dura mater being removed, the convolutions of the cerebrum seemed somewhat flattened, as if by

pressure made from within outwards. In the centre of the posterior lobe of the right hemisphere was a small soft tumor, of the size of a hazel-nut, of an ash colour, and softer than the brain. A similar mass was found in the inferior part of the posterior lobe of the left hemisphere. The substance of the brain was not hardened round these tumors. The left lobe of the cerebellum was almost entirely destroyed by the suppurative softening of a similar tumor occupying its interior. The substance of the cerebellum surrounding this abscess was indurated. There were about three ounces of serum in the ventricles, but no increase of vascularity in any part of the brain or cerebellum.

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*Fatal Case of Cerebral Affection, with Symptoms resembling Hysteria, in which yellow Tubercles were discovered in the Brain and Cerebellum. Treated by Dr. HAWKINS, at the MIDDLESEX HOSPITAL.*

JOHN YOUNDEN, aged twenty-three; admitted into the Middlesex Hospital, April 11th, 1826.

This man, during the last eight or nine weeks, has been subject to frequent fits, which, from his own account, together with the description afforded us by his friends, appear to have been epileptic. He complains of a severe pain in his hips and loins; he is affected with dysuria, and hemorrhoids of a very painful nature. These latter are most probably the cause of the dysuria and pain in the hips. He has partially lost the power of moving the lower extremities, but still they cannot be said to be paralytic, since he can move them in any direction, though with difficulty. The bowels are confined, and the tongue furred.

May 1st.—He is unable to retain his urine, it is found dribbling from him. He has had no fit since he came to the hospital.

8th.—He has had a fit to-day, the first since his admission. The power of articulation is evidently affected; his vision is imperfect; the control over the muscles of the left arm is in some degree impaired. Pulse 120, small and thready. The involuntary discharge of the contents of the bladder no longer continues, and the urine is retained: it is, therefore, necessary to draw it off.

21st.—The fits closely resemble those of hysteria in women; he is not entirely deprived of his senses by them: whilst they continue, the pulse is frequently found to rise to 150 in the minute. He complains of giddiness when the head is raised. The fits usually commence with a shivering,

similar to that of an intermittent fever. He complains of cold, whilst the skin is moist and warm.

The operation of drawing off his urine first led to the observation of the extraordinary quantity of that fluid secreted: probably it amounts to not less than three quarts a-day.

Three or four days previous to his decease, the faces were passed involuntarily; and he remained in a comatose state until his death, on the 29th.

It is unnecessary to detail at full length the medical treatment, which in a case of this nature must necessarily have been chiefly palliative. The oleum terebinthinæ was at first tried, as recommended by Dr. Prichard, and supposed by him to be almost a specific in certain cases of epilepsy. But, though it failed to produce any effect on the nervous symptoms, it was of some use in mitigating the dysuria; and when it was afterward laid aside, the patient himself requested that it might be resumed, on account of the relief which he had experienced whilst taking it. The infusions of uva ursi and of buchu failed to produce any benefit. The common medicines and applications for hemorrhoids produced no effect; but an opiate suppository gave great temporary relief, and succeeded in procuring sleep. Leeches and blisters were tried, but without avail; and a variety of antispasmodic medicines, with as little effect. Mercury was at first freely given as a purgative, and afterwards with the view to affect the system, but without benefit in either way.

This brief outline of the case is intended chiefly to connect the symptoms, and the morbid appearances which were presented on dissection.

*Sectio cadaveris.*—The brain was exposed, and a slight opacity of the arachnoid membrane was the first deviation from healthy structure observable. The substance of the brain was unusually firm in its texture, and the ventricles were found to contain about an ounce of serum. On examining very minutely the intimate structure, small tubercles, of a yellow colour, as described by M. Wenzel, were discovered, occupying both the cerebrum\* and cerebellum: those found in the cerebrum were situated, for the most part, near its base; and, near the cineritious convoluted surface, they were about four or five in number. The tubercles, however, were most extensive in the cerebellum: here they

\* We are not aware that Wenzel has described these tubercles as situated in the cerebrum.

were found deeply imbedded in its substance, and occasionally connected by filaments of a similarly organised matter.\* On making a section of several of these, they were found closely to resemble the yellow scrofulous tubercle of the lungs. Some, being denser than others, were cut with more difficulty: these were invariably the smallest;—others were larger, and much softer in their texture, and as it were more fully developed, agreeing in this respect with the same formations in the other structures.†

A small hydatid was found in the liver, projecting slightly on the anterior surface of the larger lobe; and a small collection of pus was found on the sternum, immediately under the integument.

The physician observed, that diseases of the brain, by their universal influence, were very apt to produce changes of structure in various organs of the body. As it requires very minute examination to discover these tubercles, it is not improbable that this, as well as other diseased appearances in epilepsy, are often overlooked; and that Lobstein is not far wrong when he states that there *ought* always to be found some diseased appearances within the cranium: of course, by this, implying that less inveterate cases, not proving fatal, may arise from other causes.

There were several curious circumstances attending this case. We believe that no doubt now exists of men being occasionally the subjects of a disease, exhibiting precisely the same symptoms as hysteria in women; nor is there more doubt of the latter disease being very frequently attended by symptoms not distinguishable from those of epilepsy: the disorders, in fact, are shaded into one another by insensible gradations. Both probably arise, as Dr. Parr observes, from the same cause, an excessive degree of nervous excitement or irritation. The correctness of the above observation was in this case very manifest: he had fits of a truly hysterical character; the urine was pale, and secreted in great quantity; and his pulse was exceedingly rapid.‡

\* It may be remarked, that there never were in this case the irregular and convulsive movements which have been attributed by some foreign physiologists to injuries of the cerebellum.

† Dr. Baillie has observed, that it is not very unusual to see a white substance formed in the brain, of an uniform smooth texture, and possessing a considerable degree of hardness, which he has ascertained to be scrofulous in its nature, having had an opportunity of seeing it converted into a scrofulous pus. But, with respect to the origin and nature of the yellow tubercles in the present case, it must be admitted that there were no traces of scrofulous formations or degeneration in other parts of the body. The lungs were remarkably healthy in their structure.

‡ We are sorry we had no opportunity of counting his pulse during sleep; for

*Fatal Case of Cerebral Affection, with certain anomalous Symptoms not accounted for by the Appearances found after Death.*  
Treated by Dr. RECAMIER, at the HOTEL DIEU, Paris.

— VERTOT, aged forty-two, journeyman; ill fifteen days altogether, during the last two of which he has been in the following state:—

November 22d, 1825.—Power of speech lost, being limited to some inarticulate monosyllables, when violently stimulated; intellectual functions considerably diminished, but still sufficient to induce him to show his tongue, and to make ineffectual attempts to speak. There is, however, no coma; and he opens his eyes from time to time, directing them with facility to different objects. The pupils are insensible and contracted; both the upper and lower eyelids are perfectly mobile, without unnatural contraction, and obedient to the will. The mouth is not drawn to one side; and the same is the case with respect to the tongue. The limbs are free, and their movements appear regulated. The neck is in a state of considerable rigidity, and allows the whole trunk to be raised by lifting up the head. The sensibility of the skin, examined on the extremities, the face, the thorax, and the abdomen, on either side, is in no degree impaired. The pulse is not frequent; the respiration is performed with freedom; the tongue is moist, and without coating; the bowels are confined, and there is retention of the urine. Lastly, the countenance is very little altered.

Clyster, with a grain of tartarised antimony; bath at 27° of Reaumur; thirty leeches behind the ears; cupping along the vertebral column.

23d.—No change. Some remains of intelligence, but utter inability to pronounce a single word; nevertheless, the patient appears to hear. He is awake, and performs some voluntary movements, such as replacing the bed-clothes when he is uncovered. The general sensibility is the same; the neck and trunk continue stiff; the constipation and retention of urine remain; the pulse begins to augment in frequency.

Bath; cupping along the vertebral column; castor oil; the catheter to be introduced.

24th.—Same state. Pulse augmenting in frequency; the pupils are still insensible, and perhaps less contracted.

this is the best mark of distinction between hysteria and the various inflammatory diseases which it mimics. During sleep, it generally falls to near its natural standard in hysterical affections.



The loss of speech is complete, although the patient still appears to hear; if this may be inferred from the different movements which he may be made to perform.

Bath; decoction of marshmallow for drink.

25th.—Tendency to sink down, (*affaissement*;) limbs less mobile, without however being paralysed; no diminution of the stiffness of the neck and trunk; pupils a little dilated; general sensibility impaired; aphonia continues; tongue dry and red; constipation; belly appears free from pain on pressure. Pulse ninety-four.

Tepid bath, with affusion; cupping along the vertebral column; potion of six ounces, with eight grains of tartarised antimony.

26th.—The state of the intellects is nearly the same, but he requires to be more strongly stimulated, in order to make him put out his tongue, or show other signs of intelligence. The neck and trunk remain fixed; the palsy of the bladder continues. The condition of the locomotive system of the limbs, and the general sensibility, has not varied since yesterday. The pupils are a little dilated; the pulse has diminished in frequency, being only eighty-eight in the minute. The patient appears to be more calm.

Potion with twelve grains of tartarised antimony; cupping glasses to be applied along the spine.

He died in the evening.

*Examination of the body.*—Head: The dura mater, the arachnoid, and the pia mater, exhibited *no unnatural appearance*, not the slightest trace of congestion or inflammation. The lateral ventricles scarcely contain an ounce of limpid lemon-coloured serosity; their serous membrane perfectly sound. The anterior part of the fornix very slightly softened, the change being sensible only to the finger, not at all so to the sight, and not occupying more than three or four lines at the most. The cerebral substance at the part was not at all injected, and without any change of colour. *The rest of the brain sound at the anterior lobe, as well as every other part: the same was the case with respect to the tuber annulare, the cerebellum; and the medulla oblongata.*

The spinal cord was natural, as well as its coverings, which exhibited no trace of congestion, unless in a very slight degree towards the extremity of the cauda equina.

The chest and abdomen were examined; but, as the details throw no light upon the case, we omit them.\*

\* Revue Medicale.

## CASES OF RHEUMATISM.

DR. CHAMBERS is in the habit of distinguishing between those cases in which rheumatism is confined to the synovial bags and bursæ of tendons, and those in which all the neighbouring parts, which have a covering of fibrous membrane, become the primary seats of the disease. These varieties, though occasionally passing into each other, more frequently run a distinct and independent course,—the rheumatic affection occupying one or other of these textures exclusively. We subjoin a few cases which will serve to illustrate the characteristics and treatment of the *diffuse* form: in our next we shall present our readers with some examples of the *bursal* rheumatism.

*Cases of Diffuse Rheumatism.* Treated by Dr. CHAMBERS, at ST. GEORGE'S HOSPITAL.

I. MAY 17th, 1826.—Francis Hislop, ætat. twenty-two, baker, from St. Martin's-lane.

Complains of universal pain, which is however severest in the neighbourhood of the joints. The hands, wrists, and fore-arms are puffy and very painful, especially on the slightest motion. The feet and ankles are also similarly affected, though not to the same extent. There is no effusion into any of the synovial bags. Pulse 120, small and hard; skin dry and warm; tongue white; bowels open; urine high coloured. Ill ten days; was first attacked in the left leg and foot.

Fiat VS. ad 3xij. statim.

Calomel, ℞ss.; Opii, gr. ij. omni nocte.

Haust. Sennæ, omni manè.

Diæta sit parcissima.

19th.—Blood highly inflamed; pain somewhat relieved; both wrists and hands are, however, much swelled and puffy. Pulse 110, full and soft; tongue white; skin hot and clammy; perspiration rancid; bowels open, but not freely purged.

Rep. Calomel, ℞ss.; Opii, gr. ij. omni nocte et mane.

Haust. Sennæ c. Tinct. Jalapæ, ʒi. meridiè quotidie.

(Let him be kept comfortably cool.)

22d.—The wrist and fore-arm of the left side free from disease. The right hand and arm still puffy and painful. None of the synovial membranes or bursæ are distended with

fluid. Pulse seventy-two, full and soft; tongue red and clean; skin hot and dry; bowels open.

Rep. Calomel et Opium omni nocte.

Haust. Sennæ c. Tinct. Jalapæ omni mane.

24th.—No complaint, except slight stiffness of the left foot and leg. No fever. Mouth slightly affected by the calomel.

Omitt. Pilulæ Calomel et Opii.

Sumat Pulv. Ipecac. c. Æss. omni nocte.

Haustus Sennæ alterna quaque mane.

Haustus Cinch. bis die.

Garg. Aluminis.

June 10th.—Has been gradually convalescent since last report: complains only of some remains of pain in the right shoulder.

II. October 13th, 1825.—Joseph Edwards, æt. thirty-four, mason.

Complains of rheumatic pains and diffused swelling of the limbs, particularly in the neighbourhood of the wrists and shoulders. The pains are not much altered by variations of temperature. Pulse 120, full; skin hot; tongue white; bowels costive; urine high coloured. Has had slight pains of limbs for three weeks, and nine days ago was seized with severe pains and swellings of the feet, ankles, and the neighbourhood of the knees. The disease, in a day or two afterwards, left these parts, and attacked the present seats of pain and swelling.

Calomel, Æss. ; Opii, gr. ij. omni nocte et mane.

Haustus Sennæ meridiæ quotidie.

Diæta sit parcissima.

20th.—Mouth slightly sore. Pains relieved.

Opii, gr. ij. bis die. Omisso Calomel.

Haustus Sennæ omni manè.

22d.—Pains and swellings quite gone. Pulse eighty, full and soft; skin cool; tongue furred in centre, clean at edges; bowels open. He sleeps ill.

Repet. medicamenta.

27th.—Cured.

He took the haustus cinchonæ for the last three days, and had a blister applied for a slight pain in the right shoulder.

When patients apply soon after the commencement of the attack, the disease sometimes yields very speedily to this method of treatment: the following may be regarded as illustrations.

*Cases of Rheumatism.* Treated by Dr. MACLEOD, at the  
WESTMINSTER GENERAL DISPENSARY.

I. MAY 27th.—Jane Cripps, aged fifty-four, a washer-woman, residing in St. Martin's.

Complains of violent pain in both ankles, extending to the anterior part of the foot, and in the right wrist and hand: no swelling of the parts. Pains worse during the night; does not sweat. Pulse ninety-two; skin hot; bowels open from medicine. Has had pains flying about her for several days, but yesterday morning they fixed in her ankles, which at the same time became so stiff that she was unable to walk across the room. Has been subject for several years to occasional attacks of rheumatism.

R. Hydrar. Submuriat. gr. x.; Opii, gr. ij. M. fiant pil. ij.  
omni nocte sumendæ.

Infus. Sennæ, ʒiiss. cum Magnes. Sulphat. ʒij. omni mane.

30th.—Has taken two pills for three successive nights. Experienced no relief from the first. Was better yesterday, and is quite free from pain to-day. Bowels briskly purged; mouth sore.

Gargarisma aluminis. Omitt. alia.

June 1st.—Free from all complaint, except some remains of ptyalism.

Rep. gargarisma. Habeat Acid. Sulph. dil. gtt. x. ter die.

10th.—No return of pain; mouth quite well.

Omitt. omnia.

II. June 3d.—Maria Fisher, aged twenty-five, residing in St. Ann's, Soho.

Complains of severe pain in the posterior part of the right leg, a little above the ankle-joint, where there is a diffuse swelling and some degree of redness. Slight pains in the arms; worse at night. Sweats copiously, without relief. Pulse 100; skin rather hot; tongue clean; bowels regular. Had a similar attack last year, which confined her for two

months. At present has been ill for a week: attributes her complaints to exposure to cold. Took grt. xxx. of the vinum colchici three times a-day, for three days during the present week, without any relief.

Hydrar. Submur. gr. x. ; Opii, gr. ij. omni nocte.

Infus. Sennæ, ʒss. c. Magnesæ Sulphat. ʒij. omni mane.

6th.—Pains entirely gone. Mouth sore; bowels very open; occasional sickness and vomiting. Did not take the senna and salts.

Gargarisma aluminis. Omitt. medicamenta.

10th.—Cured.

It is now several years since the Editor adopted this method of treating acute rheumatism, in consequence of the success attending Dr. Chamber's practice at St. George's Hospital. The following case, which occurred in October 1820, and was mentioned at the time in this Journal, (vol. xlv. p. 437,) affords a striking illustration of its efficacy:—

III. A labourer, between thirty and forty, of robust constitution, was visited in the afternoon, when he was found in bed, with pains all over him, particularly in the wrists and ankles, which were red and swollen. He had much fever, and the slightest movement excited the greatest agony, so that he lay motionless upon his back. The attack had come on two days before, from exposure to cold. Two scruples of calomel and eight grains of opium were ordered to be made into eight pills, of which two were to be taken night and morning; senna and salts at mid-day.

On visiting him next day, he was found sitting by the fire, almost entirely free from pain, *having taken all the eight pills between six in the evening and ten next morning.* His mouth was made slightly sore, and he rapidly got well.

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#### CASES OF STRANGULATED HERNIA, requiring Operation.

*Case of Inguinal Hernia, in which the Operation was performed without opening the Sac. Treated by Mr. TRAVERS, at ST. THOMAS'S HOSPITAL.*

JANUARY 21st, 1816.—John Iliff, ætat. twenty-one, admitted with symptoms of incarcerated inguinal hernia; gives the following account of his complaints:—Has had a rupture on the left side from his infancy. He wore a truss for many

years, but, this having been broken, he neglected to procure another; and from this time the hernia has generally been down. It was always, however, reducible, and could be returned by moderate pressure: this he used to effect by crossing his legs, and pressing them strongly together. On one occasion this attempt produced considerable pain, and proved ineffectual: it was then reduced by a surgeon.

Yesterday evening, when running violently, he fell; the hernia came down, and he was unable to return it. It increased in size, and became painful. A surgeon, who was sent for, bled him twice, and tried the taxis without effect. Cold was then applied to the tumor, but the patient passed the night in pain, with constant vomiting.

On his admission, the tumor was tense, of a pale-red colour, not very tender to the touch. It distended the scrotum considerably, the testicle being situated at the most inferior and convex part: it was very moveable. The swelling felt partly elastic, like intestine distended with flatus, while other portions communicated the doughy feel of omentum. The neck of the hernia was proportionately thick, and it appeared to lead, with very little obliquity, into the abdomen. Stretching across between this and the hernial tumor, a tense band was distinctly perceptible to the eye. He complained of slight pain in the belly, which was relieved by pressure; his pulse was small and quick, with some hardness; his countenance extremely anxious. No stool since the hernia came down.

The taxis was tried, and persisted in for twenty minutes without avail: he was then put into a warm bath (110), and the attempts at reduction continued. In fifteen minutes, being very faint, he was removed from the bath. Having recovered from this state, a pound of blood was taken from the arm by a large orifice: a tendency to syncope supervened, and the taxis was again had recourse to, but without success. He was now placed in bed; a freezing mixture was applied to the scrotum, and a tobacco glyster administered. (3ss to ℥ss.) This was soon followed by nausea, and great general debility and distress. The taxis was once more put in practice, and, again failing, general pressure was applied to the tumor, and persevered in for half an hour, with a view of lessening its bulk by expelling the contained flatus. These means proving ineffectual, and the symptoms of incarceration continuing undiminished, the operation was had recourse to at one o'clock.

An incision, commencing a little above the external ring,

was continued for about three inches down the tumor, and through the common integuments. The superficial fascia, which was rather thickened, being next divided, exposed that part of the tendon of the exterior abdominal muscle which passes from one pillar of the ring to the other. This had a distinct semilunar figure, and explained the appearance described before the integuments were divided. This formed a partial stricture, and was divided in an oblique direction. An attempt was then made to return the hernia, but another stricture was found to exist higher up. A director was next passed under the superior pillar of the ring, which was cut by a straight incision. After this had been effected, gentle pressure was made upon the tumor, and the hernia rapidly ascended, without the necessity of opening the sac. The patient expressed immediate relief. The wound was closed by a stitch and adhesive plaster: he was replaced in bed.

Ten o'clock, evening.—Vomited immediately after the operation; slept some hours. No stool; no pain in the abdomen, but complains of pain about the chest and scrobiculus cordis; pulse quick; skin hot.

Enema purgans statim et Ol. Ricini  $\mathfrak{z}$ ss. quarta quâque hora donec, &c.

22d, nine o'clock A.M.—Has slept well. Two copious evacuations. Pain at the chest continues, and is attended with cough, which causes the hernia to protrude; abdomen easy.

23d, morning.—Complaint of the chest increased; slight pain in the abdomen; skin hot; bowels confined.

Mittatur sanguis ad  $\mathfrak{z}$ viiij.

Sulphat Magnesiae,  $\mathfrak{z}$ i.; Mist. Ammoniae acet.  $\mathfrak{z}$ ss. quarta quâque hora.

Evening.—No motion: in other respects as before.

Enema purgans statim.

24th.—Much better; two evacuations. Wound dressed; looking well.

Pergat.

February 8th.—Discharged cured. (To wear a truss.)

*Case of Hernia, in which the Tumor was of very large size, in consequence of an Effusion of Serum into the Sac. Treated by Mr. SHAW, at the MIDDLESEX HOSPITAL.*

MAY 29, 1826.—James Butler, ætat. forty-three, a bricklayer, was brought into the hospital about twelve o'clock at night, having a large scrotal hernia of the right side. It had come down between three and four o'clock in the afternoon. Several ineffectual attempts to reduce it had been made before he was brought into the hospital.

He states that, ten years ago, while he was ascending a ladder with a large mass of lead on his shoulder, his foot slipped off one of the steps, and in the attempt to recover himself, the rupture came down for the first time. The swelling was then of the size of a pigeon's egg, but in the course of two years it increased much in bulk, notwithstanding that he wore a truss. The hernia has frequently come down since that time, but he could always reduce it easily himself. Yesterday, while carrying a load, a drunken man reeled against him, so as nearly to upset him; and he was conscious of his rupture descending while he was making an effort to regain his balance. He states that he had a copious stool before he was brought to the hospital. He had also been sick, and had vomited. On the abdomen being examined, he complained of great tenderness near the neck of the tumor, and of pain which darted through to his back.

Attempts were made by the house-surgeon, for nearly an hour, to reduce the hernia by the taxis; and thirty ounces of blood were taken from the arm. The efforts at reduction not succeeding, and the symptoms continuing, Mr. Shaw was sent for, at three in the morning. He at first attempted to reduce the rupture in the usual manner; and, from the volume of the tumor, he was of opinion that the application of ice might facilitate this object. No ice, however, could be procured at that early hour, and a solution of nitrate of potass and muriate of ammonia was substituted for it, but without any advantage. A large stimulating injection, containing infusion of senna and salts, was now given. Some sickness and faintness having followed this, Mr. Shaw again tried to reduce the hernia, but without success. Having spent two hours in the attempt, and the symptoms not being yet sufficiently urgent to call for an immediate operation, he left the patient, with directions that he should be put into the warm bath, and bled while there to syncope; and that then the reduction should be again attempted.

May 30th, eleven o'clock forenoon.—The tumor is of



immense size, extending more than half-way down the thigh. At the lower part of the tumor, the right testicle can be seen projecting; the left testicle forms another projection on the middle of the tumor. The skin is dragged off the penis, the point of which forms a small projection on the upper and lateral part of the hernia. The skin is loose over the tumor, yet the sac can be felt tense and slightly elastic beneath it. The tumor does not lie deeply betwixt the thighs, but the swelling is elevated above the level of the belly. This is caused by the tucking of the external abdominal ring upon the neck of the hernia, making the lower part of the tumor tilt upwards. The tumor ends abruptly just opposite to the ring, there being no obliquity of the swelling in the direction of the anterior spinous process of the ilium. The patient points to this part with his finger as the seat of pain, and "what binds him."

It is remarkable that the size of the tumor has increased considerably since three this morning. This circumstance was even observed by the patient himself. Mr. Shaw afterwards stated, that, when he first saw the patient with such an enormous tumor, he suspected that it was an old irreducible hernia, containing a considerable quantity of omentum or intestine, and that a new portion had been pushed down, and become strangulated. But, when the patient, who is a very intelligent man, told him that, previously to yesterday, nothing was in the scrotum except the testicles, he conjectured that the tumefaction might be formed by the gut being suddenly filled with flatus, and that, under such circumstances, its size might be reduced by the application of cold. But it was distinctly proved, during the operation, that the great bulk of the tumor was formed, not by the contents of the gut, but by the secretion from its peritoneal surface, and from that of the sac.

The surgeons, having again employed the taxis without diminishing the bulk of the hernia, and the symptoms continuing, though not very urgent, they considered it most prudent to make no further use of the taxis, but to have recourse to the operation. It was thought probable that, by relieving the stricture produced by the external abdominal ring, they might be able to reduce the hernia without opening the sac. As the hernia was unusually large, it was determined to make only a small incision, so as to expose the ring, and not to divide the neck of the sac, unless it should be found necessary.

The operation was commenced by Mr. Shaw carrying his scalpel quickly through a portion of integument which was

pinched up directly over the neck of the tumor: in this way he made at once an incision of three inches long in the line of the spermatic cord, the centre being exactly over the stricture. The layers of cellular membrane were divided with rapidity, so long as they were loose and could easily be seized with the forceps; but, when the neck of the tumor was exposed, the layers of fascia became more firmly adhering, and they were more cautiously raised, the director was insinuated beneath them, and they were divided by running the bistoury along the groove. In this manner the tendon of the external abdominal muscle was exposed. Several firm bands of fascia, which were formed like cords over the external ring, were divided with the bistoury. A smooth uniform fascia was now brought into view, apparently continuous with the columns of the ring. This being opened, the director was pushed under the indented margin of the ring. There was considerable difficulty and great caution required in effecting this, on account of the bulging of the tumor, and the depth and tightness of the ring. When the division of the ring was made by the bistoury, the inferior edge of the internal oblique muscle could be perceived, and a fascia in which we could discover the fibres of the cremaster muscle. There was obviously great relaxation produced in the neck of the hernia, by the division of the external abdominal ring, and it was therefore attempted to reduce the tumor. But this trial was not persevered in, because it appeared that the neck of the sac also produced a certain degree of stricture. Accordingly, the fibres of the cremaster muscle, and its fascia, were cleared away, and the peritoneal sac was exposed. It was pinched up with the forceps, and opened by cutting with the knife carried horizontally. The director was now introduced as far as the neck of the sac, and then the bistoury, being run along the groove, was raised, so as to divide the neck of the sac. The extent of the incision of the peritoneal sac did not exceed an inch and a half.\* The finger of the operator

\* It was hoped that the intestine might have been reduced without opening the sac: when, however, it was found necessary to open it, the aperture was made as small as possible. Perhaps the following remarks, made by Mr. Bell in his clinical lecture on a case resembling this, will show the grounds on which the operator was unwilling to open the sac. "The operation performed in this case was originally recommended by Dr. Alexander Monro, who was of opinion that the danger of the operation for hernia resulted from the incision of the peritoneum, and the admission of air into its cavity. The Doctor carried this idea so far as to propose to perform the operation of Cæsarean section under water: indeed, so wedded was he to this view of the matter, that he relates the case of a wound of the pericardium with a red-hot poker, as an instance of what he conceived to be the effect of air admitted into a cavity. But, although his reason for operating in this way be untenable, the proposal is not to be rejected on that account.

could now be admitted, and it was ascertained that the stricture was removed.

Mr. Shaw now commenced the reduction of the hernia, by compressing the tumor, in order to evacuate its contents. During this attempt, a portion of omentum (healthy in appearance) was pushed out of the sac; and the assisting surgeon placed his finger upon this, to prevent any more from escaping. Meanwhile the tumor was compressed, yet it was not much diminished in its volume. On ceasing to close with the fingers the aperture through which the omentum was protruded, and again compressing the tumor, a jet of serum was forced from the wound, and continued to flow to the extent of more than a pint. When the effusion was evacuated, the size of the tumor was found to be very much diminished, there being left only a small turn of intestine, which was not very full, and covered on its fore part by the portion of omentum which protruded. The intestine was reduced with great ease, and the omentum was pushed up afterwards.\*

The lips of the wound were brought together by two ligatures and adhesive plasters. Compresses were then laid over the wound, and a double-headed roller brought round the loins and hips so as to make pressure on the wound. The scrotum was supported by a suspensory bandage. The patient was enjoined to press with his hand against the wound, if he should cough or strain in any manner. He was then carried to bed.

After the operation, he had a draught containing Tinct. Opii, gtt. xxv.; and he was ordered a pill composed of Hydrarg. Submur. gr. iij. c. Opii, gr. ss.

31st, *noon*.—Has had no evacuation. Slept well, and feels comfortable; pulse eighty-eight, and full; tongue yellow in the centre, moist on the edges; skin soft and perspiring. No pain about the abdomen, except that in the wound, which is trifling. Early in the morning he had Ol. Ricini ℥ss., which

A better argument against his proposal is, that the intestine would never be seen, and consequently that we should be in danger of reducing a portion of intestine which was unfit for reduction, on account of its being too much inflamed, or even in a state of gangrene. It must be confessed, however, that this is rather a theoretical objection; although, in the case before us, we are unable to say precisely what is the condition of the intestine. Nevertheless, the advantages of operating in the manner recommended by Munro preponderate in cases of large hernia; for there is less chance of inflammation being set up in the peritoneum, and we avoid the dangers which arise from handling the gut too freely."

\* We hope, in a future Number, to offer some cases in illustration of the cause of the difficulty of emptying the serum contained in a hernial sac into the abdomen by the taxis, and likewise of the risk of a certain quantity of the fluid escaping through the ring, and leading to the supposition that the hernia has been reduced.

has had no effect. He is ordered to have another dose of castor-oil in the course of an hour.

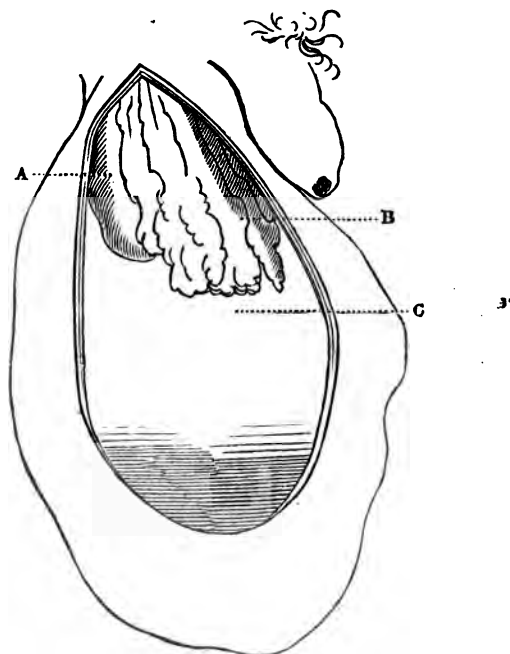
June 1st.—Yesterday, about two o'clock, he had a plentiful stool, and he has had several evacuations since. Pulse eighty-six, and full; tongue moist; skin perspiring. He slept comfortably, and feels easy.

June 2d.—To-day the wound was dressed: the edges are in close apposition, and promise to unite by the first intention. All the symptoms continue favourable. His bowels have been well opened since the last report.

June 6th.—We have not thought it necessary to give a report each day of this man's condition, because he has continued quite free from unfavourable symptoms since our last report. To-day (being the eighth after the operation,) the wound was found so completely adhering, that only a line marked the place of the incision. The adhesive straps were thought no longer necessary; the compress and roller are to be continued.

10th.—Free from all complaint.

The subjoined cut will give a general idea of the *relative size and situation of the parts*.



A, *The Intestine.* B, *The Omentum.* C, *The Cavity of the Sac, filled with Serum.*

*Case of Strangulated Inguinal Hernia, in which the Operation was performed a second time in the same place. Treated by Mr. BOYLE, at the MIDDLESEX INFIRMARY, Great Pulteney Street.*

ON the morning of the 20th of November, 1825, Mr. Boyle was called to visit Thomas Rook, residing in Turner's-court, St. Martin's-lane, labouring under strangulated inguinal hernia. This patient had been operated on about four years before, and had worn a truss till within a short period of the present account, when it was left off in consequence of being out of repair. He stated that, at nine o'clock the preceding evening, (twelve hours previously to his being visited,) he suddenly felt a sensation as if something had given way in the groin. On examination, an unusual enlargement presented itself, which increased up to the time specified above, accompanied by gradually increasing pain over the whole abdominal region, great restlessness, and nausea.

The taxis was repeatedly tried in vain. Pounded ice was applied to the hernial tumor. An ounce of castor-oil was administered, but immediately returned; and a tobacco enema was ordered to be prepared.

At twelve o'clock, the pain and the disordered state of the stomach had increased; the hernial tumor had become enlarged, and the countenance was demonstrative of considerable suffering. The tobacco enema was now administered; but, being unattended with benefit, and there being no immediate means of procuring a warm bath, the gentlemen present (Mr. Jewel, Mr. Wade, and Mr. Boyle,) coincided in opinion that an operation should not be longer deferred.

This was accordingly commenced by the latter gentleman, who carried an incision from about three-fourths of an inch above the abdominal ring, in a parallel direction to the cicatrix of the former operation, to the bottom of the tumor: thus avoiding, as much as possible, the old indurated seam of the integuments. The skin, of necessity, was divided somewhat behind the centre of the tumor. The cellular membrane was now exposed, and was observed to be so condensed and thickened as to have almost changed its structure, requiring particularly cautious dissection, from the further circumstance of its being composed of five separate layers, like fascia. These having been divided, the hernial sac was perforated with due caution: it was laid open to the bottom of the tumor, and about a table-spoonful of serous fluid escaped. The stricture was now sought for, and was found at the inner margin of the tendon of the external oblique muscle, and was removed by a gently conducted sawing motion of a probe-

pointed bistoury; the index finger of the left hand serving as a director. Every part of the protruded intestine had a livid appearance: it was returned as quickly, yet as gently, as possible, and the parts were brought in apposition; but, from their peculiarly thickened state, it was deemed necessary to unite them by two stitches, after which the parts were dressed in the ordinary manner, with adhesive straps, &c. All pain and uneasiness were removed on freeing the strangulated gut. The bowels were soon after opened by a dose of castor-oil; and, at the expiration of six days from the performance of the operation, the parts were completely united, and the patient was in perfect health.

CASES OF STRANGULATED HERNIA, *not requiring Operation.*

*Case of incarcerated Scrotal Hernia of the Omentum, in which, from the Absence of urgent Symptoms, no Operation was required. Treated by Mr. BRODIE, at St. GEORGE'S HOSPITAL.*

MAY 15th, 1826.—Stephen King, ætat. about thirty; admitted at seven o'clock this morning, with a scrotal hernia on the right side, which had come down on Saturday (the day before yesterday), in consequence of his having broken his truss, and been irreducible since that time, although he had always been able to return it for the last fifteen years, during which period he has laboured under the disease. Took some opening medicine yesterday (Sunday), which operated very many times (as he expresses it,) both upwards and downwards: he likewise had a stool early this morning. The tumor is nearly of the size of a man's fist, unattended with pain or any unpleasant symptom, except its being irreducible.

As the attempts to reduce it proved unsuccessful, he was advised to remain, and use the bath, &c.; feeling no inconvenience, however, and having urgent business, he refused to stop then, but promised to return in a few hours.

Took Ol. Ricini, ʒi.

Returned at three P.M., having had three liquid motions from the oil, and the tumor being exactly in the same state, and still unattended by pain. Was put into the warm bath, bled, and took Tinct. Opii, gtt. xl. Being then faint, the taxis was employed, and kept up for twenty minutes, during which time something appeared to pass up, and the tumor became rather smaller; but still its reduction was not accomplished.

At a quarter-past seven, he was again put into the bath, and remained there till Mr. Brodie's arrival, at a quarter-past eight, at which time he was very faint. The tumor being then examined, was found distinctly to consist of omentum, having several hard knobs or masses in it; but no distinct feeling of intestine was perceptible either to Mr. Brodie or Mr. Jeffreys. Although the hernia remained unreduced, and was rather painful, still, being unattended by any thing like urgent symptoms, the operation was not thought necessary.

Four P.M.—VS. ad  $\xi$ xviii.

Eleven P.M.—VS. ad  $\xi$ xij.

R. Magnesiae Sulphat.  $\mathfrak{z}$ i. ex Haust. Salin.  $\mathfrak{z}$ iss. 3tis horis.

16th, seven A.M.—Bowels not opened; in other respects as before.

Ol. Ricini,  $\mathfrak{z}$ i.

Three P.M.—VS. ad  $\xi$ x. During the evening and following night, he had several evacuations.

17th.—He is free from all bad symptoms.

24th.—Discharged, free from complaint; the tumor remaining unaltered, and being supported by a suspensory bandage. He has since applied a truss.

THE following case is analogous to the preceding:\*

Mr. —, aged fifty-one, has had inguinal hernia of the right side about seventeen years, which was originally brought on by running violently for six miles after a stage-coach. The first symptom of its existence was a swelling in the scrotum, with dull aching pain. This was allowed to go on for a fortnight before any thing was done: the hernia was then returned, and has been kept up ever since by means of a truss. It has always been reducible by the patient placing himself in the horizontal position, raising his lower extremities, and using gentle and steady pressure with his hand. But, on the 25th of February, 1826, it came down, in consequence of the patient having broken his truss, and at the same time taken unusual exercise, (having walked twelve miles.) In addition to the want of pressure from without, there was increased pressure from within, as Mr. — had become eight inches larger round the abdomen within the last twelvemonths. On endeavouring to reduce it as usual, he did not succeed, and now felt at one part of the tumor a lump about the size of a testis.

\* This case occurred in the private practice of an eminent surgeon, on which account we are not at liberty to give the name: our readers may rely upon its accuracy.

February 26th, (Sunday).—Went to church, but, when he returned, he felt so ill as to go to bed : his bowels acted, and he lived as usual.

27th.—Went out a little way, but was obliged to return : felt still worse. Bowels open.

28th.—Still worse; not able to stand.

March 1st.—(A surgeon was called in.) The tumor is red, inflamed, and very painful when pressed. There is a large hard knot at the inferior part of it, which, if squeezed, produces sickness and pain, similar to what is experienced on squeezing the testis. When in the horizontal posture, and quiet, he feels no constitutional disturbance whatever. The pulse and tongue are natural, but the bowels have not been open to-day. If he stands up, sickness and faintness are the immediate consequence. It is conjectured that the rupture consists of omentum, which adheres, and is doubled or coiled layer after layer upon itself; thus accounting for the hard substance at the inferior part of the tumor.

A brisk dose of jalap, &c. to be taken immediately.

Evening.—The bowels have been freely opened.

2d.—Not worse. Pain on pressure in the course of the inguinal canal.

Leeches to be applied to the tumor. Continue the purgative medicine occasionally.

3d.—Better. Less pain on pressure.

Repeat the leeches; keep the bowels acting.

From this time he gradually got well, the leeches having been again repeated, and a lotion applied. At first he wore a suspensory belt, but was soon able to wear his truss as formerly. The knotted omentum is not gone, but is less. His general health is now as good as ever.

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*Case of Strangulated Hernia, in which there was considerable ambiguity, owing to the Scrotum having been bruised, and a Tobacco Glyster administered prior to the Patient's Admission. Treated by Mr. SHAW, at the Middlesex Hospital.*

JAMES WHITE, æt. twenty-five, a patrol.

Dec. 7th.—This man has a large tumor of the scrotum: it is black, as if it were severely bruised; it feels as if it contained a fluid, and is œdematous from the scrotum to the root of the penis. A harder tumor occupies the abdominal ring. He says that, last night, when running after a thief, he struck his belly against a post, and brought down a rupture. We must here notice, that these men attribute all that befalls them to the performance of their duty; and that it is very unlikely that a blow upon the belly should force a



portion of intestine down so as at once to form a large scrotal hernia. The belly is not at all distended, nor is there pain on pressure, except just in the neighbourhood of the ring; but he is in an extraordinary state of suffering and exhaustion. His pulse is weak and fluttering; his countenance very pale; his skin cold and clammy; and he is sick: in short, he exhibits the symptoms which threaten death, in the last stage of strangulated hernia.

On inquiry, it is found that he has had a clyster of tobacco infusion, which throws some light upon the symptoms. We also learn that attempts have been made to reduce the gut: (he afterwards admitted that he had used very forcible means himself.) As the symptoms seemed to be referrible to the effect of the tobacco, and the blackness to the attempts made to reduce the hernia, it was resolved by the surgeons to meet again.

Before their next visit (which was made at four o'clock,) the man's mother had arrived, who stated that her son, when a child, had a "windy rupture;" and the patient, having now rallied a little, said that his rupture often came down, but that he could return it at night. The taxis had been repeatedly tried in the morning by the house-surgeon, but without success, and principally because the patient was in such a state of apathy that he always turned round on his belly, begging to be let alone; so that it was almost impossible to do any thing. As the symptoms have been gradually improving, the attempt to reduce the tumor by the hand was again made.

Four o'clock.—The tumor, when now examined, though large, gives the idea of being formed by a very thin sac, such as might be expected in a congenital hernia. On using the proper efforts at reduction, there appears a sort of crepitus, as if a portion of air were escaping from the hernia, which gives promise of final success; and the hope is further increased by the circumstance, that this seeming emptying of the hernia gives rise to tormina of the bowels; but still the patient, is in a very peculiar state, and apparently writhing under the pain, will not submit to further attempts. He again turns upon his belly, and will not keep himself in the right position, or submit to further pressure. The surgeons were thus obliged to leave him, and ordered the following pill:

R. Colocynth. gr. v. Calomel, gr. iii. Opii, gr. ss. M. fiat pilula.

About an hour and a half after he took this pill, he had an injection of salt and gruel; and in the evening the pill was repeated.

Eight o'clock.—The attempts at reduction have been re-

newed. The tumor is diminished, and softer; he has had motions. He says he thinks he can now reduce it himself, which he promises at least to attempt. The symptoms are altogether better, and he is relieved from that state of excessive lowness and sickness which seemed to urge the necessity of an immediate operation. All idea of operating is given up.

Dec. 8th.—His condition improves; the blackness of the scrotum is changed to a red colour, and is now dissipating: part of the tumor, however, is still down. He has had motions.

Dec. 9th.—The intestine is now reduced, and the scrotum quite empty.

In the remarks made on this case, the perplexing nature of the symptoms was pointed out. Although they were very similar to those of a patient about to die of strangulated intestine, the tumor seemed likely to be reduced: its character, however, could not be satisfactorily ascertained, in consequence of the patient's unwillingness to submit to the taxis. This necessarily made the case more obscure. The scrotum was black, but this formed no indication of the state of the parts within. The principal obscurity in the symptoms arose from the effects produced by the tobacco glyster.

#### INJURIES OF THE SPINE.

*Cases of Fractured Spine. Treated by Mr. JEFFREYS, at ST. GEORGE'S HOSPITAL.*

I. WILLIAM BANKES, forty-five years of age, was brought to the hospital, January 29th, 1825, with a severe injury of the back, occasioned by a fall from a scaffold of forty feet high. In his descent, his body was observed to come in contact with one of the projecting poles. On examining the back, a distinct crepitus could be felt about the fourth dorsal vertebra, where there was evidently a fracture and displacement of the bone. He complained of pain and soreness about the injured part, and of tightness and pain across the chest. All the parts below the fracture were deprived of sensation and volition: the muscles of the abdomen did not appear to be employed in the act of respiration; he was unable to make water, and the penis was in a state of semi-priapism. Bleeding, purging, the horizontal position, and low diet, were directed; and the urine was drawn off, as occasion required, by the catheter.

On the 31st, he complained of increase of pain and oppression across the chest, and his breathing was more diffi-

cult. There was also a tendency to delirium; and his pulse was full and active, beating ninety strokes in a minute. Sixteen ounces of blood were drawn from his arm, which relieved him very much; but the blood, when cold, showed no marks of inflammation.

February 1st.—A large slough was forming on the sacrum. On the 2d, he had convulsive twitchings of the muscles of the lower extremities. These increased on the following day, and continued to the day of his death. They were brought on by pressing or pinching the skin, and even by taking down the bed-clothes, and exposing his legs and thighs to the cold air. His urine was very abundant, and deposited a bulky, slimy, adhesive sediment. When tested with litmus paper, it was sometimes acid, and at other times alkaline.

By the middle of the month, he was losing flesh, and had a good deal of irritative fever. The slough separated from over the sacrum, which was exposed by the exfoliation: nevertheless, healthy granulations arose, and filled up the hollow which had been left; and some old ulcers, which he had on the legs at the time of his admission, healed up very rapidly. He daily became more emaciated; had hectic flushes and perspirations; voided his stools and urine involuntarily; and his sleep was broken and disturbed by the convulsions, which had now become general.

On the 30th of March, he was seized with a violent rigor, that lasted two hours, and was followed by fever and profuse perspiration. This attack was accompanied with more violent convulsions, and a burning pain in the right thigh. For the next four days, there was a recurrence of similar attacks, at intervals of about eight hours; and he died, quite worn out, on the 3d of April, nine weeks and two days after the receipt of the injury.

*Dissection.*—The body of the fourth dorsal vertebra was broken through, and its spinous process fractured at the base; the anterior surface of the vertebra, as well as the intervertebral cartilages above and below the body of the bone, were extensively destroyed by ulceration; an abscess having formed over this part, containing about six ounces of purulent matter. Between the bony canal and the theca vertebralis, was a slight effusion of blood and lymph; serous effusion was also found within the theca, and a considerable degree of congestion of the pia mater. That part of the spinal marrow which lay over the fracture was softer than usual; and there was a small greyish, or ash-coloured spot, which seemed to be the effect of incipient ulceration.

The arachnoid and pia mater covering the cerebrum were

thickened, and more vascular than natural; and there was rather more water than usual in the ventricles.

The liver was soft and very vascular, and had a dingy green chocolate colour.

II. Dennis Broderick, fifty-five years of age, was admitted May 20th, 1825, having the preceding day fallen from a height of twenty-five feet to the ground, and broken his back. He had nearly, but not entirely, lost the power of motion and sensation in the lower extremities: with much difficulty, and very slowly, he could move the thighs upon the pelvis. He complained of a good deal of pain about the injured part of the spine; there was considerable distention of the abdomen, from accumulation of flatus in the intestines; and the abdominal muscles did not appear to be engaged in the office of respiration. He had not voided his urine spontaneously, nor passed any stools since the accident. The penis was in a state of priapism. He had a white tongue, and his pulse was seventy-six.

The seat of the fracture appeared to be about the last dorsal vertebra: at this part there was a displacement of the vertebrae, and between the spinous processes a hollow space could be perceived, large enough to receive the end of the finger. There was also a fracture of the left clavicle.

Cupping and fomentations were employed to the back; and he took the common house-physic at intervals, till his bowels were well emptied, after which the flatulent distention of the abdomen went off. He was unable to empty the bladder without the assistance of the catheter, and he voided his stools unconsciously.

He complained of pain in the back, and his respiration was somewhat oppressed and difficult; and, on the 23d, an emphysematous swelling was observed on the left side, close to the fracture. No suspicion had been excited before of there being a fracture of a rib. A flannel roller was put on, and in a few days the swelling disappeared.

On the 28th, there came on paralysis of the sphincter vesicae, as well as of the sphincter ani, and he passed both urine and stools involuntarily: nevertheless, the bladder was unable to empty itself, a certain portion of water still remaining in it. On this account, a flexible gum catheter was fixed in the bladder, which had the effect of relieving him from that part of his sufferings; but only for a short time, as the urine soon found its way along the sides of the instrument, the sphincter being completely paralysed.

On the 31st, a large slough had formed on the sacrum,

which separated and left a deep ulcer. Other ulcers also formed on the hips; and one took place over the spinous process of the vertebra, immediately below the seat of the fracture, which it laid bare. He was quite insensible of the presence of these sores.

About the beginning of June, he began to emaciate very rapidly, and fell into a state of great debility, with hectic flushes and perspirations: he lost his appetite, had a furred tongue, and a quick feeble pulse. These symptoms continued to increase; he became daily more wasted and enfeebled, and at length sunk and died on the 21st of July, worn to a complete skeleton, having survived the accident exactly nine weeks.

*Dissection.*—The spinous process of the last dorsal vertebra had been broken off at its base, and pressed on one side, in which situation it had united. At this part the hollow had been felt at the examination of the spine, on his admission into the hospital. The body of the same vertebra was broken through and displaced, so as to make an angular projection into the anterior part of the spinal canal. Within the lumbar portion of the sheath of the medulla spinalis was found about half an ounce of bloody serum. The central portion of the spinal marrow, where it lay upon the fractured vertebra, was softened and ulcerated for the space of an inch, and was of a grey ash colour. Nothing like union had taken place between the fractured portions of the body of the vertebra. The last rib on the left side had been broken between its angle and articulation with the spine, and was soundly united. Perfect union had likewise taken place in the fractured clavicle.

III. Jeremiah Riley, twenty-six years of age, was brought to the hospital between six and seven o'clock in the evening of the 12th of September, 1825, having fallen, about half an hour before, from a ladder, a height of twenty-five feet. His forehead was observed to come first in contact with the ground, and his body was at the same moment bent violently forwards. He was stunned by the fall, but soon recovered himself, and on his arrival at the hospital was quite sensible. There was a slight contusion of the forehead; and, on examining the back, a considerable projection was observed of the spinous process of the seventh dorsal vertebra. Above this the spinal column appeared to be bent forwards, and there was a good deal of swelling of the soft parts on each side of the injured part. All the parts below the injury were completely paralysed, and had entirely lost both sensation

and voluntary motion; his skin was quite cold, and his pulse scarcely perceptible.

On the following day (Sept. 13th), he was perfectly sensible, and quite free from any symptoms of injury of the head, except that the pupils were rather sluggish in their motions; but he complained of a good deal of pain in the back. The abdomen was distended with flatus, and he had voided neither stools nor urine by his own efforts. The penis was in a state of priapism; his pulse 100, and rather full; and vesications were beginning to appear on the sacrum. An evaporating lotion was directed for the contusion on the forehead. Sixteen ounces of blood were taken from his arm. He had a senna draught, and afterwards a clyster, which had the effect of emptying his bowels, and removing the distention of the abdomen; and his urine was drawn off by means of a catheter three or four times a-day.

On the 14th, he still complained of pain in the back; his urine was scanty and high coloured; his tongue white; pulse 120, small and thready. Sixteen ounces of blood were taken by cupping from his back.

On the 16th, he began to complain of pain across the epigastrium, and along the margin of the ribs, with tightness and difficulty of breathing. His stools were voided involuntarily; his tongue clean; pulse ninety-two.

On the 19th, a large slough had formed on the sacrum. His urine had become alkaline. There was now little or no pain in the back, but the pain across the epigastrium became very troublesome and constant. He had incontinence of urine, as well as of stools, and it was occasionally tinged with blood; and scarcely any was found in the bladder when the catheter was used. The constant dribbling at length brought on swelling and inflammation of the prepuce, with phymosis. A catheter was placed in the bladder, with a view to remedy this evil, but without success, as the urine passed off by the sides of the instrument. Great emaciation and debility came on; he lost his appetite, and had profuse sweats.

On the 1st of October, the eschar separated, leaving a large deep ulcer over the sacrum. On the 12th, he was seized with rigors, which were succeeded by a hot, and then a severe sweating fit. These symptoms recurred, with increasing violence, on the 13th, 14th, and 15th: he could keep nothing on this stomach; and erysipelas appeared on his back, in the neighbourhood of the fracture. He took the volatile effervescing draughts with ether, bark, ammonia, laudanum, brandy, &c. without any benefit; and on the 16th he died.

*Dissection.*—The bodies of the seventh and eighth dorsal

vertebræ were broken into several pieces, and much displaced. Within the theca vertebralis lying over this part was a small quantity of coagulated blood; and the spinal marrow, for a space of more than three inches in length, was entirely destroyed by ulceration, as completely as if it had been cut out with a knife. The extremity of the spinal cord at the upper part of this space was in a state of ulceration, and united by adhesion to the theca: the lower end was also ulcerated, but not united to the theca. The brain presented no morbid appearances.

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## COMMUNICATIONS.

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*Observations on a Case of Inflammation of the Veins, after Amputation, resembling Phlegmasia Dolens.* By G. J. GUTHRIE, Esq.

INFLAMMATION of the veins is the most fatal consequence of amputation, and most frequently occurs where the patient has previously been in a very irritable or suffering state. It is of two kinds,—the adhesive or healthy, and the irritative or unhealthy, embracing all the different shades of inflammation between them. The first kind is seldom observed when it takes place, and, when observed, is usually cured. The latter is almost as invariably fatal. I have seen it destroy—I had nearly said, hundreds; being, in fact, the most common cause of death after amputation. When a person, after undergoing this operation, is about to suffer from unhealthy inflammation of the veins, the pulse quickens, and continues above ninety, and generally from 100 to 130, until his dissolution; the stomach sickens; there is for the most part frequent attacks of vomiting, usually of a bilious character, followed by the common symptoms of fever; he is restless, sleepless, and anxious; the tongue white. There is, in general, after the first three or four days, some marked paroxysms of fever, with remissions (rigors). The patient emaciates rapidly; the skin becomes tinged of a yellowish hue, and often covered with perspiration; bowels irregular. The pulse becomes weaker and more irritable, and increases in frequency as the disease goes on. The patient gradually sinks; or the febrile symptoms subside, with the exception of the frequency of the pulse, which also may even be diminished; he rallies a little, and the appetite returns: but, whilst he says he is better, and will get well, the daily, nay almost hourly, deterioration of the appearance

is well marked, and a slight accession of fever soon closes the scene.

The stump is not in more pain than in many other cases in which no inconvenience follows, and frequently there is neither more pain nor suffering than is common to the operation. Neither is there any remarkable pain or tenderness in the course of the vessels.

In the following case, the femoral vein, as high as Poupart's ligament, of the amputated or right side, was frequently examined by pressure, and the iliac above the ligament in the same manner; but it never gave more uneasiness than the same degree of pressure would have done during health; for the occurrence of inflammation was suspected from the sickness, and the state of the pulse, previously to the explosion of symptoms on the left side; no part of which, from the iliac region downwards, would admit of the slightest pressure without great suffering. The evolution of heat was considerable; the sudden and great enlargement of the whole of the superficial veins was early very conspicuous; which, with the severity of pain experienced at all times, and augmented to agony on the slightest motion, were the only perceptible differences, and those only in degree, to be observed between it and a case of phlegmasia dolens, either by comparison with what I recollected, or recollect of cases previously or subsequently seen. It is also the only instance, I have observed, out of more cases, than have perhaps fallen to the lot of most surgeons to see, in which the femoral veins of the opposite side became affected after amputation of the other extremity. I have seen the iliacs of the opposite side frequently implicated, but I do not remember a case of the inflammation having proceeded lower. In few can the inflammation be traced higher than the diaphragm, and the patient usually dies before it passes the point of junction of the emulgent veins.

This case may be viewed as one giving rise synthetically to phlegmasia dolens, from a similar, although not the same cause, occurring in a different manner. It tends to confirm analytically the etiology and pathology of this disease, as advanced by Dr. Davis, in his paper in the twelfth volume of the Medical and Chirurgical Transactions, viz. that phlegmasia dolens, occurring in puerperal women, is caused by an inflammation of one or more of the principal veins within, and in the immediate neighbourhood of, the pelvis." In them it is usually, although not always, a curable complaint; whilst inflammation of the veins after amputation is generally as fatal. The difference consists in this—that the inflammation in puerperal women is most frequently of the healthy or



adhesive kind; whilst, after amputation, it is of the unhealthy or erysipelatous kind.

Dr. Davis, in stating that inflammation of the veins of and near the pelvis is the cause of phlegmasia dolens, conjectures that it takes place in them in consequence of their being previously disposed to it, from the inconvenience, pressure, and excitement, they sustained during the period of pregnancy; and he quotes from Mr. Wilson's Lectures on the Blood, an opinion in support of this theory, viz.—that “all the veins liable to much pressure, or to enlargement of diameter, during pregnancy, appear to be more or less predisposed to inflammation upon the sudden removal of those agencies, by the consummation of the act of parturition.” This hypothesis obtains support from the fact stated in the different dissections related by Dr. Davis and others, that the uterus and its appendages were sound, or in their natural state. Without having the slightest intention to dispute the accuracy of the gentlemen who made these dissections, or to hazard even a doubt upon what is past, I would suggest for the future the propriety of tracing the veins from the common iliac of the affected side down to the uterus; and, when attention is particularly directed to this point, I have little doubt but the inflammation of the veins will be found to have begun at the uterus, and to have ascended along a continuous surface, until it implicated the veins of the extremity. The inflammation being in a great degree adhesive, and the uterus not quite in a healthy state, in the generality of cases in which an examination takes place after death, the traces of inflammation may be readily overlooked in this part and the veins leading from it, unless they are made objects of especial observation.

Jane Strangemore, aged twenty-eight, was admitted into the Westminster Hospital, September 24th, 1823, with an elastic swelling of the whole of the knee-joint, measuring twenty-seven and a half inches in circumference. The swelling began in the under part five months previously, and gradually attained its present size, attended during its formation by severe paroxysms of pain, which have for the last three weeks been so violent as to deprive the patient of rest. Her general health is good, and she has suckled a baby for the last seven months, a fine healthy child.

The thigh was amputated by Mr. Guthrie on Saturday, the 27th; the bone being sawn through just below the trochanter. She suffered a good deal of pain after the operation: an opiate was administered and repeated, and she passed a good night.

28th.—The pulse, which previously to the operation was eighty, had increased to 100: there is, however, little heat of skin, and she appears easy. Some aperient medicine and saline draughts to be given every four hours. Towards evening, the stomach became sick; she vomited a quantity of bilious matter: pulse 120. Three grains of calomel, and one of opium, followed by the common aperient mixture, were ordered, and an enema. The region of the stomach, to which part pain was referred, is to have applied to it equal parts of ether and laudanum.

29th.—Bowels well evacuated: pain and sickness subsiding.

30th.—Appears better. Stump dressed, and looking well. Pulse 120.

October 1st.—Better in all symptoms, but looking irritable and ill. No pain any where; no sickness; appetite good; pulse still quick.

4th.—The house-surgeon called up in the night, on account of pain in the stump, which was relieved by changing the dressings.

8th.—Two ligatures have come away. The wound looks well; the edges have nearly healed. Eats meat, and with a good appetite.

9th.—Not so well: pulse 120; skin hot; feels ill; complains of pain in the other leg and thigh, which disturbed her rest. Was well purged, and the leg fomented. Towards evening, the pain was principally felt in the calf and in the heel.

10th.—Pulse 130; tongue furred; vomiting again of bile. The pain in the thigh, extending upwards to the groin and downwards to the heel, is intolerable, particularly in the latter part. The thigh and leg much swelled, and tender to the touch, although without redness. The swelling elastic, yet yielding to the pressure of the finger, but not in any manner like an œdematous limb. Mr. Guthrie pronounced the disease this morning to be inflammation of the veins, extending from the opposite side; but, after a careful examination, and on pressure, no pain was felt in the course of the iliac vessels of that side; and the stump looked well, save at one small point, corresponding to the termination of the femoral vein.

17th.—The symptoms continued nearly the same during the week; the sickness of stomach, and purging of bilious matter, abating at intervals.

18th.—Is better, and the pain is diminished. She looks somewhat better, but is becoming thinner.

20th.—Less pain in the limb, which is swelled, tender to

the touch; and all the superficial veins are very much enlarged. The groin more swelled and tender. Sickness gone, and her appetite returning, and is allowed good, nourishing, simple diet. The stump had been poulticed since the 9th, to promote suppuration.

25th.—During these five days, it was interesting to see the patient eat and desire solid food, and, in her extremely emaciated state, seem to enjoy it. The bowels occasionally deranged. Pulse always from 126 to 136. Is slightly jaundiced in colour, but declares she is better, and will get well.

Monday, 27th.—Gradually sunk in the evening, and died; the limb having every where diminished in size, except at the groin, where the swelling was more circumscribed, resembling the appearance of a chronic abscess approaching the surface.

On examination after death, the termination of the vein on the face of the stump was open, and in a sloughy state: above that, for the distance of four inches, and as high as Poupart's ligament, the inside of the vein bore marks of having been inflamed; but the inflammation seemed to have been of an adhesive character. Above that point the inflammation appeared to have been of an irritative or erysipelatous kind, had gone on to suppuration, and the vein was filled with purulent matter, lymph, and blood, partly coagulated, partly broken down. These appearances extended up the cava beyond the diaphragm, and traces of inflammation could be distinctly observed almost into the auricle. This disease had passed along the right internal iliac and its branches; it had descended along the left iliac vein, affecting its branches in the pelvis to the uterus, and along the limb to the sole of the foot. At the left groin, the iliac vein becoming femoral, was greatly distended with pus, apparently of a good quality; and, if the patient had lived a day or two longer, it would have been discharged by a natural effort, as in chronic abscess. The viscera were healthy.

During the last days of this woman's life, no blood was returned from the lower half of the body, unless by the superficial veins: yet she was comparatively easy, although of a yellow hue, emaciated to the utmost, so as to represent a living skeleton; and in this state, with a pulse at 130, craving for and eating a whole mutton-chop, and more, at a time, with the most death-like countenance it is possible to conceive.

*Remarks on some Representations of the Eye, and on Artificial Pupil.* By WILLIAM MACKENZIE, Andersonian Professor of Anatomy and Surgery, and one of the Surgeons to the Glasgow Eye Infirmary.\*

[WITH AN ENGRAVING.]

ANY representation of anatomical structure to be put into the hands of students, ought to be scrupulously correct, which does not appear to me to be the case with three magnified representations of the eye, engraved from those used in Mr. Mayo's lecture-room, after the plates of Zinn and Soemmerring, and lately published.

The first of these magnified views is an antero-posterior perpendicular section of the eye, derived from the 3d and 4th figures of the eighth plate of Soemmerring's "*Icones Oculi*." In the following particulars, however, it differs from the figures of Soemmerring; and generally, I think, erroneously.

Soemmerring represents the cartilage of the upper eyelid as three times broader than that of the lower: Mr. Mayo as only twice and a third broader, which is inaccurate. Soemmerring represents the conjunctival fold between the upper eyelid and the eyeball as two-fifths longer, in the perpendicular direction, than that between the lower eyelid and the eyeball: Mr. Mayo represents these folds as very nearly equal, which might lead the student to suppose the upper fold to be scarcely more liable than the lower to receive and conceal foreign substances, blown or driven into the eye. Soemmerring represents the levator oculi as approaching the optic nerve, in its course from the sclerotica to the bottom of the orbit, much more rapidly than the depressor oculi: Mr. Mayo represents these two muscles at very nearly an equal distance from the optic nerve, which is incorrect. Mr. Mayo represents the edge of the cornea as received into a groove of the sclerotica: Soemmerring has not represented the connexion as if formed in this manner, nor does such a mode of connexion exist between these parts. It is well known that the sclerotica overlaps the edge of the cornea; and that the obliquity of the edge of the cornea, arising from this mode of connexion, is such, that the chord of the segment formed by its concave surface is to the chord of the segment formed by

\* We are happy to give insertion to Mr. Mackenzie's observations on the anatomy of the Eye: at the same time we think it right to state, that we have reason to believe that the Plate of the Eye used in Mr. Mayo's lecture-room did not aim at more than the general fidelity usual in plans of this description.

its convex surface, in the proportion of six to five and a half lines. Mr. Mayo represents the convex surface as more extensive than the concave. Soemmerring represents the antero-posterior diameter of the eye in proportion to the transverse, 29.7 to 27.84 or 106.677 to 100.000: Mr. Mayo as 12.2 to 11.5, or 106.086 to 100.000; and, perhaps, in this point Mr. Mayo is the more correct.

The proportions of the axes of the humours of the eye have been strangely mistaken. If we look into Bartholin's *Anatomy*, (page 517,) we see a section of the eye which represents the crystalline lens nearly in the middle of the humours; and the error which in Bartholin's figure is exaggerated to the utmost, we find pervading many anatomical books, and of course also optical books, even down to that of Wood, as may be seen by turning to his *Optics*, (page 123,) where the axis of the aqueous humour is represented as equal to that of the crystalline humour. Oculists have even spoken of pushing the crystalline lens, while yet entire, into the anterior chamber, which is impossible. The lens may be pushed through the pupil, but it will occupy not merely the anterior chamber, but the posterior also, and even part of the space which it occupied when in its natural situation. Soemmerring represents the axis of the crystalline lens to that of the aqueous chambers, as 4.9 to 3.44, or 100.000 to 70.204; Mr. Mayo in the proportion of 1.92 to 1.24, or 100.000 to 64.589. In this point, also, Mr. Mayo is, perhaps, the more correct. Mr. Lawrence, in his notes to Blumenbach's *Comparative Anatomy*, (page 380,) gives the following as the proportions of the three humours, measured on the axis of the eye, after it had been frozen:—Aqueous,  $\frac{2}{3}$ ; crystalline,  $\frac{1}{3}$ ; vitreous humour,  $\frac{1}{2}$ . In the recent eye, previously to being frozen, the proportions of the crystalline and aqueous humours are in the reverse proportion to what is here stated, the process of freezing greatly expanding the aqueous humour.

Mr. Mayo represents a triangular space at the circumference of the crystalline lens, and marks it as the canal of Petit; but, in such a section of the eye as this figure is intended to represent, no such space is visible, and is therefore not set down by Soemmerring. Nor is the triangular form assigned by Mr. Mayo to this canal the real form. Soemmerring represents the optic nerve, after its passage through the choroid, as forming a convex projection: Mr. Mayo represents it flat, or even concave.

These discrepancies between Soemmerring's views of this section and Mr. Mayo's, are sufficient to show that the

latter has not been very particular in following the great German anatomist.

There are some further remarks regarding this section of the eye, which occur to me, and which I think worthy of attention.

If an antero-posterior perpendicular section of the eye be made exactly through the middle line of that organ, so as to divide it into halves, a nasal and a temporal, they may be very nearly equal, so far as the sclerotica is concerned; but in many respects they will differ remarkably from each other, and it will be impossible, even by representing both the nasal and the temporal surfaces of the section, to make the student sensible of the differences.

1. The nasal half of the eye will contain the entire optic nerve, passing through the sclerotica and choroid; for the optic nerves penetrates through these tunics about the eighth of an inch nearer the nose than the posterior extremity of the common axis of the cornea and globe, and will therefore not be touched at all in such a section.

2. The nasal half of the eye will contain the greater half of the lens, and of course the centre of that body; for the centre of the lens does not correspond to the centre of the cornea, but lies more inwardly, as Varolius appears to have first pointed out.

3. The nasal half of the eye will contain the greater half of the pupil; for the pupil, as Winslow observed, is not in the centre of the iris. The centre of the pupil corresponds, as both Zinn and Haller agree, to the centre of the lens, while that of the iris is in the common axis of the cornea and globe. Dr. Wells, I believe, was the first to show the optical consequence of the centre of the cornea not corresponding to the centres of the pupil and lens; namely, that no ray of light whatsoever can pass unbent from the atmosphere to the retina.

4. The nasal half of the eye will contain the lesser half of the corpus ciliare; for this ring is broader on the temporal side than on the nasal. It follows also that the lesser half of the halo signatus, which is but an impression of the corpus ciliare, and the lesser half of the annulus gangliiformis, which covers the corpus ciliare externally, are contained in the nasal half of the bisected eye.

Now, a horizontal section of the eye enables us to represent all the differences which exist between the nasal and temporal hemispheres of the eye, and has therefore been chosen by the younger Soemmerring, as the subject of his splendid Thesis, at Gottingen, in 1818.\*

\* DETMAR WILHELM SOEMMERRING, de Oculorum Hominis Animaliumque Sectione Horizontali. Folio.

There is one point in the elder Soemmerring's perpendicular section of the eye, which I should wish to see explained. I have now before me a preparation of the human eye, (and I have added a view of the preparation in Fig. 1,) in which, after cautiously removing the cornea, all except a narrow ring close to its circumference, and removing on one side a small portion also of the sclerotica, I laid hold of the iris with a pair of small forceps, and tore away a portion of the circumference of the iris from its adhesion to the choroid coat. By this means I brought into view the anterior extremities of the ciliary processes, and I now see them forming an indented circle, closely surrounding the edge of the crystalline lens.\* But, in the elder Soemmerring's figure, a considerable space is left between the ciliary processes and the lens, and the same space is represented in Mr. Mayo's copy.

No such space is represented in the younger Soemmerring's horizontal section. In Sir Everard Home's section (Phil. Trans. 1822, Plate vi. Fig. 3,) the ciliary processes are even made to overlap considerably the anterior surface of the lens. If the contents of the eye are removed, and the mere tunics examined, I observe, from preparations of the eye now before me, that the ciliary processes appear exactly as the elder Soemmerring and Mr. Mayo have represented them; but, in a section of the tunics and humours, I believe they will appear closely surrounding the edge of the lens.

This is a point of considerable practical importance. I am perfectly assured of the fact, as it exists in the preparation which I have represented in Fig. 1, and Beer has insisted on the same fact in his work on Staphyloma. If this, then, be the constant or natural state of the parts, the needle, in entering the posterior chamber, in the operation of depression or division *per scleroticam*, must be made to pass accurately between two circumferential lines, so as neither to be buried prematurely in the lens, nor to wound the very vascular ciliary processes.

But, if the elder Soemmerring's figure be correct, (and it is with considerable hesitation that I express this doubt, so very high is my respect for that most accurate anatomist,) then there is a space sufficient for the needle to be passed, without much caution; and, what is still more important, an artificial pupil by separation of the iris from the choroid, or by excision

\* I always recommend my pupils to make such a preparation of the human eye, and keep it by them, as it shows some of the most interesting points in the surgical anatomy of the organ.

of a portion of the iris close behind the edge of the cornea, might enable a patient to see, even though the lens was opaque; an event which has been asserted by Demours to have actually happened, but which Beer has ridiculed as a fable.

In Fig. 2, I have given a sketch of Demours' celebrated case of artificial pupil, a case which has excited more attention and more controversy than perhaps any other case of eye disease upon record.\* My own opinion is, that the lens in that case was transparent. The opacity of the greater part of the cornea, and the obliteration of the pupil, which rendered necessary the attempt to form an artificial pupil, took their origin in external inflammation, probably strumous, a disease which rarely has the effect of rendering the lens opaque.

That an artificial pupil, although even still closer to the edge of the cornea than that formed by Demours, will not restore vision, if the lens be actually opaque, was manifest in the right eye of M. A. (Fig. 3,) in which I formed an artificial pupil by excision of a portion of the iris, as is represented in Figure 5. By this operation an opaque lens was brought into view, which impeded vision, and which I divided with the needle three months after; while, in the left eye of the same individual, (Fig. 4,) I formed an artificial pupil by separating a portion of the edge of the iris from the choroid, as is represented in Fig. 6, through which vision was restored without any subsequent operation, the lens in this eye being transparent. Both eyes of this patient had been reduced to the state represented in Figs. 3 and 4, by severe accidental injuries, and consequent inflammation.

Mr. Mayo's second figure is derived from the first figure in Zinn's beautiful fourth Plate; but the copy is objectionable in the following particulars:

1. The sclerotica and choroid are represented of an uniform light brownish colour, which is the true colour of neither tunic.

2. The outline of the eyeball ought to pass over that of the optic nerve, as in Zinn's figure; whereas, in the copy, the outline of the one runs into that of the other.

3. Where two of the ciliary or iridal nerves are represented as dissected through the annulus gangliformis, it might be supposed, from Mr. Mayo's figure, that the whole

\* Case of Mr. Sauvages, p. 426 of DEMOURS' *Traité des Maladies des Yeux*, vol. iii.



thickness of the choroid was removed; whereas, in Zinn's figure, this is seen not to be the case.

4. The other ciliary or iridal nerves are, in Zinn's figure, beautifully represented as sinking into the substance of the annulus gangliformis. In Mr. Mayo's figure, they are represented as if they were cut across.

5. It is well known that there are only four large *venæ vorticosæ*. Two of them are partially represented in Zinn's figure, with a very small vein between them. But Mr. Mayo has magnified the small intermediate vein to very nearly the same size with the two *venæ vorticosæ*. These veins are coloured red like the arteries in the other figures. If they had been purple, the student would have at once recognised them to be veins.

Mr. Mayo's third figure is derived from the sixth figure of Soemmerring's fifth Plate; but, in addition, we have an explanatory representation of the structure of the retina, which was not so perfectly understood when Soemmerring published his work.

It is well known that the retina consists of three layers:—1st, the external, lying in contact with the choroid coat, the *membrana Jacobiana*; 2d, the middle, medullary, or nervous layer; and 3d, the cellulo-vascular, lying in contact with the hyaloid membrane; not, as Mr. Wardrop states it, "the one which is contiguous to the choroid coat being vascular, and the other, which is medullary, being in contact with the capsule of the vitreous humour."\* It is also generally known that the *membrana Jacobiana* is extremely delicate, capable, however, of being raised from the nervous or middle layer, especially when the dissection is performed in water. Mr. Mayo has represented this membrane as thick and stiff, so as to form a strange contrast with the representation given by Dr. Jacob in the twelfth volume of the *Medico-Chirurgical Transactions*, Plate 9. The nervous layer of the retina may be scraped off with a lancet, and the cellulo-vascular layer left entire; but Mr. Mayo has represented the nervous layer also as raised in the form of a membrane, all which cannot fail to communicate to the student erroneous notions of the structure of the retina.

Mr. Mayo has also represented the *limbus luteus* and *foramen centrale* of Soemmerring, as if seen through the *membrana Jacobiana*; whereas, to see these parts, that layer of the retina must be removed.

Magnified representations of minute parts of the body are

\* *Morbid Anatomy of the Human Eye*, vol. ii. p. 134.

highly useful, and especially magnified representations of so important an organ as the eye. I should not have made these remarks, had I not considered the errors contained in these three figures as too numerous and too important to be passed over, and had I not hoped, by these criticisms, to lead to their correction on a future occasion.

*Spreull's-court, Glasgow; 8th May, 1826.*

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*On the Nervous Circle which connects the Voluntary Muscles with the Brain.* By CHARLES BELL, Esq. [From the *Philosophical Transactions*.]

IN the papers which I have had the honour of addressing to the Society on the arrangement of the nerves of the human body, I have proceeded upon a comparison of the nerves of the spinal marrow with the nerves of the encephalon.

It was shown that the former were compounded of filaments possessing different powers, and that each nerve, having several properties or endowments collected within itself, proceeded to its destination without intricacy.

Unless we had discovered the composition of the roots of these nerves, we should have continued to suppose that one nerve was simple in its structure, and yet capable of bestowing the very different properties of motion and sensation.

But, having satisfied myself that the roots of the spinal nerves had distinct powers, I followed up the columns of the spinal marrow; and, with a knowledge of the composition of these nerves as a key, I examined the different properties of the nerves of the encephalon. Here, in the head, the nerves arise simply, and diverge to their destinations without the close compact or union which the spinal nerves form; and, accordingly, the anatomy of these nerves of the brain affords satisfactory proof of their uses or functions. I am about to show that every muscle has two nerves, of different properties, supplied to it. This I could not have ascertained by examination of the spinal nerves alone, because of the intimate union of all their fibres; I had recourse, therefore, to the nerves of the head. By prosecuting those inquiries, which led to the distinction of the different classes of nerves, I hope now to demonstrate, *that, where nerves of different functions take their origin apart and run a different course, two nerves must unite in the muscles, in order to perfect the relations betwixt the brain and these muscles.*

It may be in the recollection of the Society, that my first paper showed the difference of the nerves of the face: by

dividing one nerve, sensation was destroyed, whilst motion remained; and by dividing the other, motion was stopped, whilst sensibility remained entire.

Other parts of the nervous system since that time have engaged my attention; and it is only now that I am able to make full use of the facts announced in my first paper, which were indeed expected to lead to further improvement of our knowledge of the animal economy. When I distinguished the two classes of nerves going to the muscles of the face, and divided the motor nerve, and when the muscles were deprived of motion by this experiment, the natural question suggested itself,—of what use are the nerves that remain entire?

For a time I believed that the fifth nerve, which is the sensitive nerve of the head and face, did not terminate in the substance of the muscles, but only passed through them to the skin; and I was the more inclined to this belief on observing that the muscular parts, when exposed in surgical operations, did not possess that exquisite sensibility which the profusion of the sensitive nerves would imply, or which the skin really possesses.

Still dissection did not authorise this conclusion. I traced the sensitive nerves into the substance of the muscles; I found that the fifth pair was distributed more profusely to the muscles than to the skin; and that, estimating all the nerves given to the muscles, the greater proportion belonged to the fifth or sensitive nerve, and the smaller proportion to the seventh or motor nerve. On referring to the best authorities, as Meckel,\* and my excellent preceptor Monro, the extremities of the fifth were described by them as going into the muscles, so that of this fact there cannot be a doubt.

Having in a former paper demonstrated that the portion of the seventh nerve was the motor of the face, and that it run distinct from the sensitive nerve, the fifth, and observing that they joined at their extremities, or plunged together into the muscles, I was nevertheless unwilling to draw a conclusion from a single instance; and therefore cast about for other examples of the distribution of the muscular nerves. It was easy to find motor nerves in combination with sensitive nerves, for all the spinal nerves are thus composed; but we wanted a muscular nerve clear in its course, to see what alliance it would form in its ultimate distribution in the muscle. I found in the lower maxillary nerve the example I required.

\* MECKEL de Quinto Pare Nervorum Cerebri.

The fifth pair, from which this lower maxillary nerve comes, as I have elsewhere explained, is a compound nerve; that is to say, it is composed of a nerve of sensation and a nerve of motion. It arises in two roots; one of these is the muscular nerve, the other the sensible nerve: on this last division the Gasserian ganglion is formed. But we can trace the motor nerve clear of the ganglion, and onward in its course to the muscles of the jaws, and so it enters the temporal, masseter, pterygoid, and buccinator muscles.

If all that is necessary to the action of a muscle be a nerve to excite to contraction, these branches should have been unaccompanied; but, on the contrary, I found that, before these motor nerves entered the several muscles, they were joined by branches of the nerves which came through the Gasserian ganglion, and which were sensitive nerves.

I found the same result on tracing motor nerves into the orbit, and that the sensitive division of the fifth pair of nerves was transmitted to the muscles of the eye, although these muscles were supplied by the third, fourth, and sixth nerves.

A circumstance observed on minute dissection remained unexplained: when motor nerves are proceeding to several muscles, they form a plexus,—that is, an interlacement and exchange of fibres take place.

The muscles have no connexion with each other, they are combined by the nerves; but these nerves, instead of passing betwixt the muscles, interchange their fibres before their distribution to them, and by this means combine the muscles into classes. The question, therefore, may thus be stated: Why are nerves, whose office it is to convey sensation, profusely given to muscles, in addition to those motor nerves which are given to excite their motions? and why do both classes of muscular nerves form plexus?

To solve this question, we must determine whether muscles have any other purpose to serve than merely to contract under the impulse of the motor nerves. For if they have a reflective influence, and if their condition is to be felt or perceived, it will presently appear that the motor nerves are not suitable internuncii betwixt them and the sensorium.

*I shall first inquire, if it be necessary to the governance of the muscular frame, that there be a consciousness of the state or degree of action of the muscles?* That we have a sense of the condition of the muscles, appears from this: that we feel the effects of over-exertion and weariness, and are excruciated by spasms, and feel the irksomeness of continued position. We possess a power of weighing in the hand:—

what is this but estimating the muscular force? We are sensible of the most minute changes of muscular exertion, by which we know the position of the body and limbs, when there is no other means of knowledge open to us. If a rope-dancer measures his steps by the eye, yet, on the other hand, a blind man can balance his body. In standing, walking, and running, every effort of the voluntary power, which gives motion to the body, is directed by a sense of the condition of the muscles, and without this sense we could not regulate their actions.

If it were necessary to enlarge on this subject, it would be easy to prove that the muscular exertions of the hand, the eye, the ear, and the tongue, are felt and estimated when we have perception through these organs of sense; and that, without a sense of the actions of the muscular frame, a very principal inlet to knowledge would be cut off.

If it be granted that there must be a sense of the condition of the muscle, we have next to show that a motor nerve is not a conductor towards the brain, and that it cannot perform the office of a sensitive nerve.

Without attempting to determine the cause, whether depending on the structure of the nervous cord, or the nature or the source of the fluid contained, a pure or simple nerve has the influence propagated along it in one direction only, and not backwards and forwards; it has no reflected operation or power retrograde; it does not both act from and to the sensorium.

Indeed, reason without experience would lead us to conclude that, whatever may be the state or the nature of the activity of a motor nerve during exertion, it supposes an energy proceeding *from* the brain *towards* the muscles, and precludes the activity of the same nerve in the opposite direction at the same moment. It does not seem possible, therefore, that a motor nerve can be the means of communicating the condition of the muscles to the brain.

Expose the two nerves of a muscle; irritate one of them, and the muscle will act; irritate the other, and the muscle remains at rest. Cut across the nerve which had the power of exciting the muscle, and stimulate the one which is undivided, the animal will give indication of pain; but, although the nerve be injured so as to cause universal agitation, the muscle with which it is directly connected does not move. Both nerves being cut across, we shall still find that, by exciting one nerve, the muscle is made to act, even days after the nerve has been divided; but the other nerve has no influence at all.

Anatomy forbids us to hope that the experiment will be as decisive when we apply the irritants to the extremities of the divided nerves which are connected with the brain; for all the muscular nerves receive more or less minute filaments of sensitive nerves, and these we can trace into them by the knife, and consequently they will indicate a certain degree of sensibility when hurt. To expose these nerves near their origins, and before any filament of a sensitive nerve mingles with them, requires the operator to cut deep, to break up the bones, and to divide the blood-vessels. All such experiments are much better omitted; they never can lead to satisfactory conclusions.

Experience on the human subject most abundantly illustrates these facts. For example: a patient of mine having, by a tumor pressing the nerves of the orbit, lost the sensibility of the eye and eyelids, she retained the motion of the eyelids by the *portio dura* coming round externally and escaping the pressure which injured the other nerves. Here the course of sensibility backwards to the brain was cut off, while the course of volition was free: she could not tell whether the eyelid was open or shut, but, being asked to shut the eye which was already closed, she acted with the orbicular muscle, and puckered the eyelids. When I touched the eye, there was no winking, because the sensitive fifth pair had lost its power, although she could command the motion by voluntary exertion.

In another instance, when the eye was insensible, touching the eye gave rise to a blush of redness and to inflammation, because the *part* was excited, but the muscles were not called into action: the relations which connect the sensibility of the eye with the motions of the eye and eyelid are established in the roots of the fifth and seventh in the brain: the loss of function of the fifth nerve, therefore, interrupted the circle. Here, too, the motor nerve of the eyelid was perfect, and the eyelid readily acted under the influence of the will, but, when the eyelid was touched or pricked, it communicated no sensation. Is this insensibility of a motor nerve owing to the course of its influence being from the brain, and not towards it? When the nostril had lost its sensibility from an affection of the first pair, we could not excite sneezing;—when the tongue and cheek had lost sensibility, the morsel was permitted to remain between the tongue and the cheek until it was offensive, although the motions both of the tongue and the cheek were perfect. All these phenomena correspond with the experiments on animals.

Now it appears the muscle has a nerve in addition to the

motor nerve, which, being necessary to its perfect function, equally deserves the name of muscular. This nerve, however, has no direct power over the muscle, but circuitously through the brain, and, by exciting sensation, it may become a cause of action.

*Between the brain and the muscles there is a circle of nerves; one nerve conveys the influence from the brain to the muscle, another gives the sense of the condition of the muscle to the brain.* If the circle be broken by the division of the motor nerve, motion ceases; if it be broken by the division of the other nerve, there is no longer a sense of the condition of the muscle, and therefore no regulation of its activity.\*

We have noticed that there is a plexus formed both on the nerves which convey the will to the muscles, and on the nerves which give the sense of the condition of the muscles. The reason of this I apprehend to be, that the nerves must correspond with the muscles, and consequently with one another. If the motor nerve has to arrange the action of several muscles, so as to produce a variety of motions, the combinations must be formed by the interchange of filaments among the nerves before they enter the muscles, as there is no connexion between the muscles themselves. As the various combinations of the muscles have a relation with the motor nerves, the same relations must be established by those nerves which convey the impression of their combinations, and a similar plexus or interchange of filaments therefore characterises both.

We have seen that the returning muscular nerves are associated with the nerves of sensibility to the skin, but they are probably very distinct in their endowments, since there is a great difference between conveying the sense of external impressions, and that of muscular action.

In surgical operations the fact is forced upon our attention, that the pain of cutting the skin is exquisite, compared with that of the muscles; but we must remember that pain is a modification of the endowment of a nerve, serving as a guard to the surface, and to the deeper parts consequently. This is further exemplified in the sensibility of the skin to heat; whilst, on the contrary, a muscle touched with a hot

\* Thus led to conclude that there is motion in a circle, we nevertheless cannot adopt the hypothesis of circulating fluids. That a fluid does not proceed from the brain, we may learn from this,—that, on touching the end of a motor nerve which has been some days separated from the brain, the muscle is excited as when the nerve was first divided. The property, however it may be defined, is therefore in the nerve. Our language might, perhaps, be made more precise if we used terms which implied the course of nervous influence, whether from or towards the brain; but it will be difficult to express this without the aid of hypothesis.

or cold sponge during an operation, gives no token of the change of temperature but by the degree of pain.

Many of the nerves which perform the most delicate operations in the economy, are not more sensible to pain than the common texture of the frame. The lower degree of sensibility to pain possessed by the muscles, and their insensibility to heat, is no argument against their having nerves which are alive to the most minute changes of action in their fibres.

When the anatomist shall find both the portio dura of the seventh and the fifth going to the integuments of the head and face, he may naturally ask, why are there two nerves to the surface? and he will probably reflect, that although the principal office of the nerves of the skin is to convey impression to the sensorium, yet the influence of the mind is conveyed to the surface. The condition of the mind in passion, for example, is as forcibly communicated to the skin as to the muscles themselves; and, therefore, if a branch of the fifth be necessary to convey sensation from the surface to the sensorium, the seventh is necessary to the change of vascular action, and to the condition of the pores when affected by a cause proceeding from within, outwards.

I feel a hesitation when I reason upon any other ground than on the facts of anatomy. Experiments are more apt to be misinterpreted; and the very circumstance of a motor and sensitive nerve being generally combined together, affords a pregnant source of error.

It is natural to suppose that the galvanic influence might be brought to bear on this subject; but I may be permitted to suggest to any one who pursues it in this way, that it will be necessary to distinguish the effects produced by the nerve as a mere conductor, and when performing its living functions. The nerve, dead or alive, may convey the galvanic power like a wet cord; but, if the nerve be in possession of its living property, a great deal will depend on the direction in which the galvanic fluid is transmitted. If it be transmitted against the course of the nervous influence, it will reach the muscles and act feebly, but the power of the nerve will not be exercised upon the muscles; but, if it be transmitted in the proper course towards the muscles, the nerve itself will be excited, and its power propagated so as to produce violent action in the corresponding muscles.



*Biographical Sketch of the late Mr. PEARSON. By a  
Correspondent.*

MR. JOHN PEARSON was born at York, on the 3d January, 1758. At the age of sixteen, he began his professional education at Morpeth, in Northumberland, where he resided three years. In the month of June, 1777, he removed to Leeds, and placed himself under the tuition of Mr. Hey, who even at that time possessed considerable eminence in that part of the country. The opportunities of practice which Mr. Pearson enjoyed while in this situation were very great, especially in the surgery of accidents and operations; in which respect he always described the Leeds Infirmary as superior to the greater part of the London hospitals. There is also no doubt that the sound judgment and laborious perseverance which he witnessed in Mr. Hey, contributed much to strengthen his intellectual faculties, and confirm him in habits of industry. In the year 1780, he came to London, and continued his studies at St. George's Hospital, and in the anatomical school of Dr. Hunter. It was his original intention to have remained in town only for such a length of time as would have enabled him to become a member of the College, and then to have returned into the country, and established himself either at York or at Hull; but he was induced to form other plans, by events which could not have been anticipated.

In the year 1781, the Lock Hospital had fallen into serious difficulties, chiefly from the utter inefficiency of the medical establishment, one of the surgeons being constantly resident abroad, and the other incapable, from age and infirmities, of discharging his duties. At this juncture it so happened that Mr. Pearson became house-surgeon to the hospital, and the assiduity and talents he displayed in that situation so attracted the notice of the governors, that, in April 1782, they constituted him surgeon. Similar reasons induced the founders of the Public Dispensary in Carey-street to select him as surgeon to that institution, which was established about the same period. These two occurrences induced him to alter his plan, and to take up his residence in London; and it soon appeared that his professional prospects would not suffer by the change.

It was his lot, at an early period, to enjoy the society of some individuals of great talents and high scientific distinction, who have been long numbered with the dead. His mind was thus drawn to the higher paths of philosophy, especially to the works of Lord Bacon, on which he bestowed

much labour, and acquired a most thorough and intimate acquaintance with them. These studies he always considered as mainly conducive to his subsequent progress in professional knowledge, and to the distinction which followed it: nor did he ever fail to recommend a similar course to those in whose success he was particularly interested. He was desirous of carrying the lessons he had thus learnt into his own medical pursuits, and of founding that science, if possible, on a more solid and philosophical basis. With this view he always prefaced his lectures on Surgery by lectures on Physiology, considering the latter as inseparable from the former, and esteeming it absolutely essential to the comprehension of the first principles of medical treatment. Such was the mode of study which was first introduced into this country by Mr. Hunter, but which his contemporaries, and even his successors, have been slow in imitating. In general, physiology is used rather to give clearness and interest to the study of anatomy, than in its higher and more useful application as an introduction to medicine and surgery. While this is the case, medicine can scarcely be called a science: it can be little more than a collection of facts, arranged with more or less attention to method.

The physiological lectures of Mr. Pearson were distinguished by the quantity of matter which they contained, and which often, it must be confessed, made them beyond the comprehension of the ordinary class of medical students. The conclusions were remarkably sound, and have, in almost all instances, been confirmed by subsequent discoveries. His lectures on surgery, in the same way, contained an immense mass of knowledge, the general result of all his reading and experience; which he augmented from year to year by the addition of every important remark that he met with, and every new conclusion that he arrived at in practice. The highest merit undoubtedly belongs to his lectures on Syphilis, which are less marked by erudition, but display, in an eminent degree, the power which he possessed of arranging his knowledge, and treating, without confusion or perplexity, a most extensive and complicated subject. They were written later than his other lectures, having been originally delivered in 1807 to military cadets, at the desire of the Army Medical Board, and subsequently repeated, with some additions, to a small class of pupils in the year 1811. They have little reference to the theory of the disease, which Mr. Pearson always felt to be extremely obscure and uncertain: their value is entirely practical, and, from the accuracy with which symptoms are described, and the excellence of the rules of treatment, they

form the best practical treatise which exists on venereal disorders; and it may be added, that recent experiments have in no degree affected their utility or truth, which would be felt the more strongly by each individual, in proportion as his experience in such cases is more extensive.

The principles which are inculcated in these lectures were exemplified in the Lock Hospital, where the practice of Mr. Pearson was remarkably systematic. He held the office of surgeon to that institution upwards of thirty-six years, during the early part of which period he had the whole of the patients under his sole management. Other avocations, joined to ill health, latterly prevented him from bestowing that attention which he wished on its duties, and he finally resigned it in the year 1818. Similar considerations had induced him to relinquish the Public Dispensary in the year 1809.

It was the intention of Mr. Pearson at one period to have written much, and in detail, on the science of Surgery, reduced to the principles on which it is founded; and undoubtedly the philosophical character of his mind peculiarly qualified him for the execution of such a project. He had actually made some preparation for its accomplishment on an extensive scale, but he was compelled to abandon his intention by a long course of ill health, which rendered him incapable of continued application; while a certain fastidiousness of judgment, almost inseparable from extensive reading, gradually crept upon him, and rendered him less satisfied with his productions. Of the whole which he projected, we have nothing but the "Principles of Surgery," which are little more than a very short syllabus of a part of his lectures. He has left, besides, a small tract on Cancer, and also "Observations on the Effect of various Articles of the *Materia Medica* in the Cure of *Lues Venerea*," in which he has interspersed some valuable remarks on the different forms of the disease, and on the effects of mercurial remedies. These, with the *Life of Mr. Hæy*, a single paper in the *Philosophical Transactions* on the *Ibis*, and a few communications to periodical publications, constitute the whole which he has given to the press, and afford very limited means of estimating either the extent of his knowledge, or the strength and compass of his intellectual powers. A just opinion of these can only be formed by those who were intimately acquainted with him.

On the 6th of May, he was seized with a sudden and violent attack of fever, under which he sunk rapidly, and expired at the end of six days, on the 12th of the same month.

## CRITICAL ANALYSES.

Que laudanda forent, et quæ culpanda, vicissim  
 illa, prius, cretâ; mox hæc, carbone, notamus.—PERSIUS.

*An Inquiry concerning that disturbed State of the Vital Functions usually denominated Constitutional Irritation.* By BENJAMIN TRAVERS, F.R.S. senior Surgeon to St. Thomas's Hospital; President of the Hunterian Society of London; Honorary Member of the Royal Medical Society of Edinburgh, and the Medico-Chirurgical Society of Aberdeen; of the Royal Society of Medicine, and the Medical Society of Emulation, of Paris; of the Imperial Medico-Chirurgical Academy of St. Petersburg; the Medical Society of Stockholm, &c. &c.—8vo. pp. 556. London: Longman and Co. 1826.

THE appearance of another volume by Mr. TRAVERS cannot fail to fix the attention of the professional reader. The works he has previously published have become established in reputation,—have been translated into various languages,—and are every where looked upon as books of authority and reference. But, in addition to the well-earned character of the author, the subject discussed in the volume before us is one of the most interesting and intricate within the range of pathological inquiry: it is only of late, indeed, that it has begun to excite particular attention; and the number of fatal cases that have been recorded during the last few years, forms a striking contrast to the silence of the older writers. This may, we conceive, be fairly attributed to the advanced state of our knowledge of disease generally; a knowledge which now enables us to distinguish many serious morbid affections, formerly unknown or confounded together.

We now proceed, without further preface, to present our readers with as distinct an account of the views of the author before us as the difficulty of the subject, and our restricted limits, permit us to offer. “Since my mind (says Mr. Travers,) was first directed to the practice of my profession, it has been in a particular manner interested by the subject of this treatise. The phrase ‘irritation,’ although it has no precise idea affixed to it, is in constant use, and appears so to satisfy or to suspend inquiry relative to unforeseen results, as to be little better than an empirical subterfuge.

“My object, therefore, in undertaking this inquiry, was to ascertain with more precision the morbid state indicated by the term ‘constitutional irritation;’ to investigate the causes most commonly productive of that state, the phenomena by

which it is manifested, and the laws by which it is governed; and, from the comprehensive view thus obtained, to derive, if possible, some permanent pathological characters, which might serve as a guide to more correct notions of its nature, and more scientific principles for its treatment." (P. vii.)

Our author does not congratulate himself upon having succeeded in accomplishing his design, and only claims credit for perseverance in the pursuit; justly adding, that the extent and intricacy of the subject may well discourage persons, however well qualified, from the attempt. Mr. Travers adds, that the difficulty is increased by the circumstance "that fatal cases are kept in shadow by modern authors;" and we readily admit that, generally speaking, authors are too apt to publish only those cases which are supposed, from their fortunate termination, to confer lustre upon the narrators: at the same time, we think that, on this particular subject, unusual candour has been evinced.

The Preface concludes with the following passage, from which we regret to find that the author has been unable to complete his design in the present volume:—"Although the size of this volume, independent of the republished documents, has far exceeded my original intention, it leaves the design unfinished. The illustrations of what I have called 'reflected irritation' remain; and, as this department of my subject comprehends the investigation of some of the most important and interesting diseases which fall under the notice of the surgeon, I entertain the hope of presenting, at a future day, another volume to the profession." (P. ix.)

The circumstances at which we have hinted above oblige us to hasten over the preliminary matters more speedily than we should otherwise have been inclined to do, in order that we may dwell more at large upon that portion of the work in which the author's peculiar views and opinions are developed. It may, however, be necessary previously to acquaint the reader that the volume is divided into six chapters, and these again subdivided into sections; the titles of which we shall give as we pursue the course of our analysis.

The first chapter treats of *the influence of constitution in modifying the effects of local injury*: this is subdivided into two sections, the first comprising *Irritability as a principle of Health*, and the second *Morbid Irritability*. There is nothing stated in the first section but what is generally acknowledged. The laws of irritability, as far as we are acquainted with them, are cursorily noticed; and Mr. Travers avows himself a disciple of Mr. Hunter.

In the second section, on *Morbid Irritability*, the author thus defines what he means by the term :

“An irritable mind is one easily excited, and over excited in reference to the occasion, whether to joy or anger, fear or pity. An irritable stomach is nauseated by many ordinary articles of diet. An irritable bladder is continually parting with its secretion before the stimulus of distention can be supposed to act. An irritable heart, if quickened by exertion or strong mental excitement, becomes tremulous and palpitating. An irritable skin breaks into a rash from many slight causes of excitement, both of diet and temperature; a plaster, which is in others only rubefacient, acts upon it like a blister. Irritable fauces are slightly sore with a change of the wind, or exposure for a few seconds to a current of air. And an irritable retina is distressed to dimness by a full light, and, like the mind, disturbed by the surviving representation of transitory impressions.” (P. 8.)

He next proceeds to describe *proper* and *sympathetic* irritability : the first he illustrates by the possibility of a man's losing his senses from a shock of the mind, the body discovering no sign of disorder. Thus, a young lady was found playing with the fingers of a skeleton, which had been placed in her bed, and lived to old age, in good bodily health, “but without a glimmer of returning reason.” The second form of irritability is familiarly exemplified by the sight of savoury food exciting a flow of saliva, and other examples of this kind, showing that here this property is sympathetic.

Our author next notices the connexion between *sympathy* and *irritability*, and gives us Mr. Hunter's well-known definition of an irritable habit. Examples of this habit are then presented to us in a variety of details, both as they occur in the mind and body. Some of them are curious, but we cannot stop to notice them : among them are some remarkable instances of the effects of high excitement of the mind, such as is produced by the dread of painful operations. Our readers will remember one or two striking examples of this kind in Baron LARREY's Surgical Campaigns.

Among the most interesting portions of this section, we select the concluding passage, not only on account of the good sense contained in it, but also as affording a useful hint to hospital surgeons for the preparation of their patients generally for the greater operations; a point we fear not so much attended to as it deserves.

“Continuous inflammation is most frequent in persons who incur injuries and undergo operations in a state of health. I have known the amputation of a stiff finger, submitted to as a matter of

convenience, fatal from this cause. A case occurs to my recollection, of the removal of a small tumor from the scalp of a lady, of which the issue proved disastrous, by inducing erysipelas of the scalp; and I recall other instances of trifling operations, performed in health, in which serious consequences were clearly avoided by imposing a rigorous restraint, and adopting a vigilant plan of treatment. My ingenious friend, Mr. George Young, whose retirement from practice is a subject of general regret, was accustomed to impose restraint before the performance of operations requiring confinement, with excellent effect. Having to extract a cartilage from the knee-joint, he would keep the man, for a week prior to the operation, in the same position as was to be maintained for the week subsequent to it. Thus the irritation of confinement, as well as that of motion, was avoided.

"The following is an illustration of Mr. Young's practice in his own words:—'A healthy carman came under my care with a loose cartilage in the right knee-joint. It had several times occasioned him to fall suddenly, and he was very anxious to submit to an operation to get rid of it. It appeared to me desirable to accustom him, before the operation, to the reduced diet, rest, and restraint, which would be necessary after it. He accordingly kept the house. On the second or third day of his confinement, I put on the roller, and bound on the back splint, exactly as I intended to do after the operation, to keep the limb perfectly steady. This confinement of the limb occasioned a restless night, some fever, a whitish tongue, a quickened pulse, a little headache, spare and high-coloured urine. He was very unwilling to continue the bandage and splint, to which he ascribed (and justly) all his constitutional disturbance, and the utility of which, prior to the operation, he could not at all comprehend. This circumstance, however, forcibly suggested to me the importance of accustoming him to restraint; it was therefore continued. The excitement which it had produced gradually subsided, and, when I found that the bandage no longer occasioned any irritation, I performed the operation. Not one untoward symptom arose, the constitution was not in the least ruffled, and the wound healed by the first intention.'" (P. 36.)

We had nearly forgotten to mention that there is a pretty long note attached to this section, in which the minute dietetic regulations, so much insisted upon by a certain class of practitioners, is rallied with much effect.

Chapter 2d is on the *Effects of Local Injury on the Constitution*, and commences thus:

"Irritation is the name given to that state which is produced by an extraordinary excitement of the irritability either of a part or of the system: irritation is, therefore, local or constitutional. The phenomena of irritation are chiefly displayed in the nervous system, and it is thus distinguished pathologically from inflammation,

which belongs to the vascular. Their relation is as intimate as that of these systems, of the extraordinary actions of which they are the results. As the causes and degrees of excitement are various, so are the signs and modes of irritation. Inflammation has been sometimes considered a healthy, because a healing action: this, though not a strictly logical, is an intelligible phraseology. In the same sense, the minor degrees of irritation also frequently serve a salutary purpose, and conduce to the preservation of the system. I object to the term 'irritative fever,' as synonymous with irritation, because irritation and fever are, in their nature, as distinct as irritation and inflammation; although their reciprocal affinities are as intimate and complicated as those of the nervous and vascular systems." (P. 39.)

The signs of *local irritation* are, 1st, an alteration in the proper sensation or action of a part. 2dly. Pain without inflammation. 3dly. Inflammation as a consequence when local irritation is acute and permanent. When this state exists in a high degree, it becomes transferred to the constitution, either immediately (that is, without the medium of inflammation,) or after a short time as a consequence of it. The terminations of local irritation are said to be in resolution, local inflammation, or constitutional irritation: and this last termination our author subdivides into the direct and reflected.

The second section is devoted to the consideration of *constitutional irritation*, and is on every account deserving of particular notice. The causes of this very alarming condition of the system are said to be, 1st, compression, concussion, and all lesions, whether chemical or mechanical; and 2dly, inflammation the result of local injury. Our author, after observing that the symptoms of constitutional irritation produced by severe injuries differ essentially from those set up by inflammation, remarks that, when the irritability of the system is morbid, simple causes of irritation become extraordinary: in fact, it is an extension of the same principle by which we attempt to explain the modifications of inflammation induced by a vitiated state of the secretions.

The next paragraph we give in Mr. Travers' own words:

"Constitutional irritation I consider to be of two kinds, direct and reflected; by which arbitrary distinction I mean to imply, that the first is wholly and immediately derived from the part, commences and is identified with the local mischief, and the constitution has no share in its production. The second, on the contrary, originates in a peculiar morbid state of the constitution to which the injury or inflammation has given birth, or, it may be, previously existing. The first is truly symptomatic, never originating spontaneously, and being immediately induced by the local



irritation, is capable of being essentially mitigated or arrested by its removal. The second is occasionally purely idiopathic, and being oftener the cause than the effect of the local action, is seldom influenced by local treatment. In the first, the local appearances are conditions depending on local causes; in the second, they depend on constitutional causes. The symptoms characterising direct constitutional irritation are, in the nervous system, rigor, delirium, convulsion, coma; in the vascular, the fever of phlegmonous, suppurative, ulcerative, and gangrenous inflammation. Those which belong to reflected constitutional irritation are, in the nervous system, epilepsy, tetanus in all its modifications, and other anomalous forms of spasm, mania, &c.; in the vascular system, the fever accompanying scrofulous and carcinomatous inflammation, erysipelas, carbuncle, &c. I deem it no objection to a division of this sort, that the parts are so blended and interwoven as to render the outline here and there obscure, or even imperceptible: it is a circumstance unavoidably resulting from the nature of the subject. Nay, if their boundaries did not mutually encroach upon each other, we might be assured that the division was too artificial to be founded on correct observation, and therefore leading to erroneous views of disease. The extremes must be indicated in order to fix and illustrate the fundamental principles of the distinction; and this is all that is required for useful purposes. In pathology, it would be absurd to expect that a line of demarcation could be laid down with accuracy approaching to that which obtains in the mathematical sciences. Let the justness of the principle be admitted upon which the division is founded, and differences upon the accuracy of the references and details may be easily reconciled. I am quite prepared to admit, that cases are of no uncommon occurrence in which, after an interval, the reflected supervenes upon the direct irritation; which may, therefore, be regarded as examples of mixed irritation, the part and the constitution acting and re-acting alternately upon each other." (P. 47.)

Our author concludes this section with considerations on the influence of contingent circumstances on the production of constitutional irritation from local injury, and which he enumerates in the following order:—1. The texture or organ injured. 2. The kind of injury. 3. Its magnitude. 4. The subject of the injury.

We must leave our readers to reflect on these various causes and their combinations, and proceed to Chapter 3d, entitled *Examples of Direct Irritation*, of which the following causes are enumerated:—1st. Sudden, extreme, and unremitting pain, and certain affections of the mind co-operating with bodily disease. 2d. Injuries and operations of various kinds. 3d. Inflammation, and its termination in suppuration and gangrene. 4th. Exhaustion from hemor-

rhage or colliquative suppuration; and 5th. Poisons, animal, vegetable, and mineral. Of all these various conditions, Mr. Travers relates numerous illustrations, including cases of sudden death after parturition, severe burns, fractures, dislocations, lacerations, &c.; surgical operations, inflammation succeeding to operations, colliquative suppuration, profuse hemorrhage, &c.

But we pause at the fifth section, which treats of *poisons*, because this includes the principal object of the work itself,—the description of wounds received in dissection; together with the peculiar views entertained by our author on the nature of such wounds, and the causes of the accidents to which they give rise. Mr. Travers commences this section, by observing, that some of these cases (namely, of wounds received in dissection,) are to be regarded as *apposite and familiar instances of the irritation set up by poison*. Many cases, he adds, of rapid inflammation following slight wounds in persons accustomed to handle dead animal substances, *in a state more or less of decomposition*, undoubtedly belong to this class; and he appears to give his sanction to the common phrase, “that the wound is poisoned;” and this is further confirmed in a subsequent part of the same paragraph, in which, although he admits that a predisposed irritable state of the system is almost always present in these instances, and that he has had occasion to witness many alarming cases of diffused inflammation arising from the slightest causes, without any suspicion of animal or other poison being absorbed; yet “the fatal effects of poison taken into the system are but too rapidly developed, *although the previous health has been undisturbed*, and the existing inflammation is insignificant.” Our author pursues the argument thus:

“That a puncture with a knee or shoe buckle, or a pen-knife, has now and then proved speedily fatal through the medium of inflammation; and, on the contrary, that persons residing in the country, in full health and habits of exercise, are seldom visited by any troublesome degree of inflammation from these accidents, only corroborates the influence of constitution; which I admit. But it is said many persons escape inflammation who are equally the subjects of these inoculations with those who pay the forfeit of their lives. This is a statement of which it is impossible to ensure the accuracy, and from which, consequently, no fair inference can be drawn. It is a well-known fact, that, if two men cohabit with an impure female, it happens continually that one escapes the disease. Let it be shown that the poison is imbibed by any two individuals, and then we are beyond the reach of contingency, and it will be fair to inquire why one person is destroyed and the other is unharmed.” (P. 201.)

To this passage a note is appended, which is adduced as a curious and interesting proof of the difference in effect between an inoculated and simple puncture. Two gentlemen punctured themselves with a needle in opening a body, but one of them received the wound after *wiping the needle to put it by*. The person who was wounded with the dirty needle (Mr. Archer) died, the other had thecal inflammation, with affection of the absorbents; the axillary glands were also acutely inflamed, and the local effects were as strongly marked as in the fatal case. The constitutional symptoms, however, were very slight.

But to continue. Our author's distinction between acute cellular inflammation proceeding from simple injuries, and exciting through that medium a fatal constitutional irritation, and those cases of inflammation arising from the poison of animal matter, is this, that, in this latter case, the inflammation is only a sign, and not the disease; and that the symptoms of constitutional irritation are not depending upon the inflammation, though they may occasionally be aggravated by it. Indeed, our author is disposed to think that the symptoms of local inflammation and constitutional irritation exist in an inverse ratio of severity: this is illustrated by a short case, which we shall insert.

"Mr. Elcock, student of anatomy, slightly punctured his finger in opening the body of a hospital patient, recently dead, about twelve o'clock at noon, and in the evening of the same day (Monday), finding the wound painful, showed it to Mr. Cooper, after his surgical lecture, by whom he was referred to Dr. Haighton, in whose house Mr. E. at that time resided. He applied a poultice to the finger, and took some active aperient medicine. During the night the pain increased to extremity, and symptoms of high constitutional irritation presented themselves on the ensuing morning. No trace of inflammation, however, was apparent, beyond a slight redness of the spot at which the wound had been inflicted, which was a mere puncture. In the evening he was visited by Dr. Babington, in conjunction with Dr. Haighton and Mr. Cooper. Still no local change was to be discovered, but the nervous system was agitated in a most violent and alarming degree, the symptoms nearly resembling the universal excitation of hydrophobia; and in this state he expired at three o'clock on Wednesday morning, within the short period of forty hours from the injury." (P. 203.)

Immediately after the relation of this case, Mr. Travers proceeds to enumerate four different textures subject to inflammation from injury: 1st, the absorbents and their glands; 2d, the veins; 3d, the cellular membrane, the

inflammation of which is either phlegmonous or erythematous, erysipelatous or gangrenous; and 4th, the thecæ of the tendons and fasciæ of muscles: all which forms of inflammation, though distinct in their origin, are, he says, subject to complication from their continuance.

Each of the above conditions occupies the attention of the author *seriatim*, but he dwells more at length upon that affection of the cellular membrane which Dr. Duncan has treated of under the term of diffuse inflammation. He describes it with much minuteness and precision, and expresses his belief that this is a specific inflammation peculiar to poison; he carefully distinguishes it from common phlegmonous inflammation terminating in gangrene, and what he calls gangrenous inflammation, which in fact (if we understand rightly) is only the more speedy effect of a rapid form of common inflammation.

In the description of the effects of inflammation of the aponeurosis, thecæ of tendons and periosteum, we meet with a detail of symptoms so similar to those said to arise from the absorption of animal matter, that we are led at once to perceive the difficulty and intricacy of the subject by the mere enumeration. How extremely difficult the discrimination by mere symptoms must be, may be inferred from the following quotation:

"To recapitulate briefly. Inflammation of the absorbents and their glands, of the vein, the phlegmonous inflammation of the cellular membrane and of the fascia, are all ordinary results of simple irritation, and may be distinct or combined, or consequential, one with another. These comprise all the textures which are the seat of active inflammation from injuries such as those to which I refer. But there is, as I have endeavoured to show, a variety in the modes of inflammation; and, though I am unable to say in what degree the absorbents, and veins, and nerves, and fasciæ, may be subject to be affected by the varieties which I have described as affecting the cellular membrane, it is highly probable that, in some degree, they are.\* The open texture of the latter, and its universal distribution as a medium of connexion, enable us better to observe the varieties of which it is the subject. The erythematous, I consider, belongs to a specific irritation, the erysipelatous to a specific state of constitution; the gangrenous is to be referred to age or constitution, if not plainly occasioned by the extent of mechanical disorganisation." (P. 219.)

\* "The veins and absorbents have been found to contain pus through an unbroken course of their canals. Such a termination is always fatal. Owing to the defect of adhesive inflammation, no barrier, and of consequence no abscess, is formed. This must be the result of a morbid variety of inflammation; for the disposition to adhesion is stronger in both these orders of vessels, and such deviations are, I believe, the results of specific irritation, as e. g. a poison."

A considerable portion of this section is filled with the details of the cases of Dr. Pett, Mr. Dease, Mr. Newby, Mr. Archer, Mr. Delph, and others, some of which have appeared in this and other Journals; it is therefore with the less regret that we pass them by, as incapable of abridgment. We are compelled to say, however, that we cannot exactly follow our author in the minute distinctions which he has pointed out between some of these cases, which he refers to simple irritation, and others, which he admits as instances of specific absorption. He appears, indeed, to be prepared for this objection, as will appear by the following passage:

“ But, it may be asked by those who incline to a contrary opinion, may not a difference in the quality of the poison, or in the susceptibility of the individual, account for the difference in the phenomena which ensue?

“ I believe that the difference in quality may explain the greater or less severity, but not the difference of phenomena. If of two individuals injured in dissecting the same subject, the case of one present the symptoms of absorption, and the other not, (as, for example, Mr. Dease and Mr. Egan, Mr. Hersey and Dr. Hennen,) I infer that the one absorbs the poison, and the other escapes it. The cases of Mr. Blyth and Mr. Young, Mr. Delph and Mr. Smartt, dissecting the same subjects, were affected with symptoms precisely similar each to the other. The absorption or non-absorption may be determined by accident, the clean or the foul instrument, &c.; or it may be referred to the second head of the question,—viz. the difference in susceptibility. The frequent exposure of some individuals to this and other poisons with perfect impunity, is a matter of notoriety; and this may explain why the specific disease is not set up, when that which results from simple irritation is: and, in truth, the greater susceptibility of local irritation and inflammation may be a condition coupled with insusceptibility of absorption, and afford in some measure a safeguard to the constitution. Thus, if the poison operate as a chemical irritant upon the part, and this inflame, whatever mischief extends to the system is referable to symptomatic irritation; but if it find a quiet and ready entrance into the system, as by an open door, the system is alarmed first, and the local consequences are displayed at a distance from the seat of injury. To what causes this susceptibility is to be referred, or to what extent it operates, we are ignorant; and whether the nature of the wound, affording a facility for absorption in the one case, and not in the other, be the real explanation: however, the fact is undeniable. But this theory of susceptibility supposes no difference in the phenomena characteristic of absorption, but refers the difference in symptoms to the fact of non-absorption. In severity, the symptoms of both specific and simple wounds undoubtedly vary: those, however, of the former less than of the latter. The appearance of vesicles

or pustules, or the contrary,—the affection of the opposite limb or side of the body, or the definitive boundary of the action by the median line,—the rapidity and vehemence with which the symptoms of pain and cerebral disorder are manifested, or the reverse,—indicate different degrees of severity. Compare the cases of Dr. Pett and Mr. Dease with those of Messrs. Delph and Smartt. Whether it be to local circumstances or constitutional peculiarity that some individuals owe their security in situations of exposure, I imagine that, if the poison be once admitted into the circulating system, none are exempt from its effects." (P. 331.)

It may be further asked, says our author, whether, as well as in degree, there may not also be a difference in the kind of poison? by which may be explained the formation of pustules in some, the affection of the glandular or cellular systems in others, &c. &c.

"The following objection to admitting the cases in question to be instances of absorption, appears to me to be decisive: they differ in no important respect from simple injuries with clean instruments, from abrasion and bruise, or inflammation of the cutis even without lesion. From such causes inflamed absorbents and their glands, and continuous cellular inflammation and suppuration, are constantly arising; and there is no evidence to prove that continuous inflammation ever arises from the passage of poisons into the mass of blood. On the other hand, distant, diffuse, and superficial cellular inflammation is certainly not an effect of simple injury; but this is the prevailing characteristic of the local action in the most urgent and fatal cases. Now, although it is in the highest degree probable that the poison varying in intensity should occasion a more or less severe disease, as we see in the cases related, it is as improbable that the character of the specific action should be subject to variety: in a word, it is improbable that the effects of the poison, quasi poison, should be at one time such as we have described, and at another such as are liable to be produced, and frequently are produced, by simple causes of irritation." (P. 335.)

In the following twenty or thirty pages we find our author arguing to make good the distinction he has drawn between the cases of absorption and non-absorption; in the course of which discussion he considers the influence of peculiar irritability, (to which he attaches but little importance *per se*,) and endeavours to account for the anomaly of the first evidence of the introduction of the poison being furnished at a distance from the part injured. Another inquiry also engages his attention in connexion with this subject,—namely, whether any specific contagion be capable of being communicated after death? Now all these questions, and many more, are treated of in a very acute and able manner, but

our limits prevent us from doing more than referring to them. The latter question he is disposed to answer in the negative.

The fourth Chapter is a very short one, and consists principally of a recapitulation of the arguments of the former section.

The first section of the fifth Chapter commences with noticing the experiments which have been made by several eminent English and foreign physiologists on the influence of the *brain* over the functions and properties of the parts to which they are distributed; under which head he considers the supremacy of the brain, the superior contractility of the involuntary muscles, illustrated by experiments, the force of habit, and the "inimitable" nature of the nervous function.

The second section treats of *derangements of the nervous system*, both physical and functional. Under this head are considered those instances of failure or suspension of the nervous power, exhibited in many instances of sudden death, or even after days or weeks from the injury, wherein there are no traces of destruction of texture to be observed. This leads to some remarks upon the mode in which such accidents prove fatal; and our author believes that the first impression is made upon the heart. In the course of this discussion, Mr. Travers explains a distinction between direct and indirect affections of function. The direct injury of an organ, he says, affects the functions secondarily; that which is indirect, or sympathetic, acts first upon the function. This he illustrates by several examples; but we are restrained, by want of room, from entering upon this subject.

The sixth Chapter is on the *Pathology and Treatment of direct Constitutional Irritation*; and first of the *state of prostration without reaction*. This condition is pretty generally understood, and therefore, without stopping to consider the explanatory matter, we proceed at once to state that the indications to be fulfilled in these cases are, 1st, to maintain action; 2dly, not to force action. The first requires the incessant observation of the surgeon, since no nurse can be qualified to direct the administration of the stimulus. Purgative medicine should not be given until the circulation is restored and pretty steady. The responsiveness of the circulating forces to an increased supply of stimulus, must serve as a caution against over-supply.

Excessive reaction produced by over stimulation, is *prostration with excitement*. Mr. Travers presents us in this section with some excellent remarks upon the indiscriminate use of blood-letting after accidents; a mode of practice much

abused, but now beginning to be reduced within the bounds of common sense.

A page or two are next devoted to the general treatment of *severe burns*, and the author sums up his opinion thus:—"Upon the whole, the results of the stimulant treatment of burns, which I have more strictly pursued since my attention has been directed to the subject of this essay, have proved highly satisfactory." (P. 465.)

The treatment of prostration with excitement and excessive reaction, consists in applying an evaporating lotion to the shaved head, a large blister to the nape of the neck, and clearing the bowels thoroughly. Medicines taken by the mouth, if not rejected, are usually inert. With regard to opium, Mr. Travers is of opinion that, in the form of enema, it is often highly useful; but, in whatever way it is exhibited, it is only in full doses that it is admissible in these cases. The henbane, as an anti-irritant, is also highly commended.

In the section on *constitutional irritation from inflammation*, our author observes, that inflammation is strong and effective, or the contrary, as it is free from irritation or mixed with it; and further on he insists still more strongly on the distinction between irritation and fever, of which, indeed, the former may be a symptom, and vice versâ; but they are, he repeats, originally and essentially distinct forms of disease.

In the treatment of inflammatory fever ensuing upon complicated injury, we are told that the chief indication is to tranquillise action, without materially diminishing power; and that the want of fever in such cases is the more alarming circumstance of the two. With respect to local applications, also, the following sentence is too important to be passed by: we fear that it is too little attended to by even modern surgeons:

"An indication of equal importance is to indulge to a certain extent the first actions of the part, by an easy position, and light and soothing applications. We should allow for the effects of local, as well as of constitutional reaction; the swelling and tension must not be aggravated and rendered a source of additional irritation, by nice adjustments and contrivances,—undoubtedly calculated to secure the best possible results, provided we could overlook or command the intermediate changes.

"The application of lint, moist or dry, to a fresh wound, quickly becomes an irritant; and adhesive plasters, circular bandages, and splints, applied (as they too often are) while effusion is going on, operate as strictures and ligatures. Plugging a fresh wound to force suppuration, or strapping it to prevent that process, are equally liable to be followed by injurious consequences. The attempt to render complicated wounds simple, by leaving them in



the original close dressings for many days in succession, has proved a common, and sometimes fatal, mischief. I have seen more than one case in which the constitutional irritation arising suddenly, and proving fatal in a week from the injury, was distinctly referrible to a diffused erysipelas and gangrene, set up by such local irritation and stricture. A sufficient inspection of the part at intervals of two days, to satisfy an experienced eye of its well doing, may be accomplished, not only without detriment to the process of healing, but with manifest relief to the patient, and is a widely different thing from handling and disturbing the position of parts, against which I would be among the first to protest as uncalled-for and injurious. Penetrating wounds attended with hemorrhage, and comminuted fractures with extensive injury of the soft parts, and in the vicinity of large joints, are especially the cases which present themselves to my mind in offering this remark." (P. 496.)

The fourth section, on *constitutional irritation arising from loss of blood*, we do not make any extracts from, having in a recent Number entered fully into the subject, when reviewing the paper of Dr. MARSHALL HALL upon this interesting topic; but pass to the next, which treats of *constitutional irritation from the absorption of animal poison*, and here we find our author again passing in review all the cases of this description which had been noticed in a former part of the work; and with the following remarks upon the treatment of this form of the disease, we close our quotations:

"When inflammation is set up sufficient to draw the patient's attention to the injury, the same simple and soothing applications which would be made to any inflamed part, are, in my belief, the most eligible. If much tension be present, emptying the vessels freely by a deep incision with a keen lancet through the line of the wound, and then enveloping the part in a poultice, is a practice which I have commonly employed, and I have thought with advantage.

"For the erythema of the arm or trunk, folds of linen moistened with the diluted liquor plumbi or liquor ammoniæ acetatis, are probably the best applications. Poultices oppress by their weight, irritate when they lose their moisture, and can seldom be borne, however well prepared. If, in protracted cases, the cellular membrane becomes much loaded, incisions are beneficial to quicken the slow and imperfect suppurative action. In Mr. Delph's case, they were undoubtedly advantageous.

"It appears to me that no rules for constitutional treatment to hold in all cases, can possibly be laid down; that we should err equally in uniformly prescribing a stimulant or a depressing treatment for these cases. The cause of irritation, the symptoms, and the habit and state of health, must be referred to, and from the aggregate the inference must be formed. As regards the first, I

feel warranted in saying, that the plan of early support formerly adopted in these cases of animal poison, under the notion, however erroneous, of a rapid putrescency of the fluids, is more consistent and rational than the antiphlogistic, which assimilates them to inflammation. Venesection, it is true, is one mode of relieving congestion; but a more pernicious one could not be devised where the congestion is the obvious result of a sudden and extreme depression of nervous power. This practice may be said to have had a fair trial in the cases of Mr. Dease and Dr. Bell: in neither did it afford sensible relief, nor did the blood assume any character of inflammation.

"Nevertheless, if a case presented itself, bearing the specific local character, in which the acute pain was combined with steady, contracted pulse, and other signs of inflammatory excitement, I should consider the trial of copious blood-letting in the commencement indicated, nay called for; but I never met with such a case; and for pain upon a vacillating, throbbing, or faltering pulse, the experiment would be unwarrantable. Certain symptoms of depression, however, which are more of a moral than a physical cast, are sometimes sufficient to mask the actual energies of the system, as the full and swinging pulse, peculiar to irritation, deceives an inexperienced person with the idea of strength. Where the use of the lancet is prohibited, pain should, if possible, be allayed by opium. It is of itself, as we have seen, a disease capable of proving destructive." (P. 536.)

We have now concluded a very imperfect and compressed account of Mr. Travers' work; and, from the very nature of the subject, as well as from the manner in which it is discussed by the author, it was scarcely possible to do more within the limits of a review. We trust, however, that we have said enough to induce our readers to turn to the volume itself, which contains much interesting matter; as, indeed, may be partly gathered from the outline we have given of it.

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*Doubts of Hydrophobia, as a specific Disease, to be communicated by the Bite of a Dog; with Experiments on the supposed Virus generated in that Animal, during the Complaint termed Madness.*  
By ROBERT WHITE, Surgeon, Brighton. 8vo. pp. 146. London, Knight and Lacey. 1826.

A MR. WHITE, of Brighton, is fully persuaded that there is no such disease as hydrophobia, nay he has written a book upon the subject, which extends to one hundred and forty pages of letter-press. It is a very weak production, and we should not have thought it necessary to bring it under the notice of our readers but for this reason, that, as it is addressed to those who are "unprejudiced by education or professional dogmas," (p. v.) it is not impossible that patients

may occasionally enquire about it, and therefore it is desirable that the practitioner should be acquainted with the character of the work, and the line of argument adopted.

And, before we enter more immediately into the subject, we cannot but sympathise with the author on the serious evils accruing to the once flourishing town of Brighton,—evils which it has generally been thought have arisen from the absence of a certain august personage, but which it appears, from the statements before us, are rather attributable to the supposed presence of mad dogs. “Numberless families thereby, we have no question, have been prevented from residing with us, *to the great pecuniary injury of the settled inhabitants;*” and again, “for three years has Brighton now been in a sense depopulated by this fear-spreading cause.” These and similar passages sufficiently prove that the abolition of hydrophobia is looked upon as very desirable by the “settled inhabitants” of the place.

It is argued that symptoms analogous to those of hydrophobia are sometimes witnessed from wounds, particularly those made by laceration or puncture, under circumstances which preclude all possibility of their having originated in the bite of a rabid animal. This is true,—tetanus sometimes resembles hydrophobia very closely, and hysteria may imitate either. Coma may be brought on by external injury, or by the administration of a narcotic; but does any one argue from this that the affection is identical in both these instances, or that because a man may be rendered comatose by a blow, therefore there is no such thing as coma from a narcotic poison? The idea of a specific poison or virus is further objected to, because we cannot fix a definite time for the supervention of its effects,—“at the end of a few days, a few weeks, a few months, many years, and the same effects are reported to take place from the self-same causes.” This is not a fair statement of the case. It is well ascertained that about forty days is the average period which intervenes between the infliction of the bite and the supervention of the symptoms; the cases in which the disease has come on at the end of a “few days,” are extremely rare; and there is not one well-authenticated instance on record in which “many years” have intervened, or even *years* at all.\* The interval between the inoculation and the supervention of constitutional symptoms

\* The only case of this kind entitled to any notice, is one which was communicated by Dr. BARDLEY to the Manchester Society, in which twelve years intervened between the bite and the death of the patient. He had for some time laboured under “nervous agitation,” and it was obviously one of those cases which have been called spontaneous hydrophobia.—See the cases published by Dr. WHYMPER in the preceding volume of this Journal.

varies considerably in different animal poisons, as small-pox, scarlatina, and measles; but yet more remarkably in venereal affections, the intervals being scarcely more definite than in hydrophobia itself. When the disease comes, it is asserted, that, "instead of a specific order, we have indescribable incongruity; not a lively picture of complaint, too descriptive to be mistaken, but a pallet, crowded with imposing colours, thrown out without order, disposition, or effect." How entirely at variance with fact is this tirade! There is not in the whole range of nosology a disease marked by more characteristic symptoms than hydrophobia, or one presenting a more "lively picture." We are quite satisfied that this will only be doubted by those who have never witnessed it.

It has long been well known that rabid dogs do not evince any dread of water; this, the author seems to think, is a discovery of Mr. Blaines, and at all events one which must "appear strange" to the believers in hydrophobia,—“for surely,” says he, “it will not be for a moment advanced, that a dread of water shall exist to form the very denominative symptom of complaint that a man receives from a brute, when by an authority like Mr. Blaine’s it is distinctly denied that such a symptom is present when the brutes themselves are affected!” We would answer that the *denominative* symptom, as he calls it, is frequently absent in man, many patients having a desire to take fluids, and attempting to do so till they are prevented by the spasms which every effort at deglutition brings on; so that the dread of water is frequently merely the result of experience. Secondly, that dogs are frequently unable to swallow liquids; and thirdly, that were it true, as he erroneously supposes, that the symptoms in mad dogs differ so essentially in this respect, it would remain for him to shew that where a disease is communicated from one species of animal to another, the phenomena in the two must necessarily be identical. That this is not the case is proved by the great modification which cow-pock undergoes when introduced into the human system.

Not the least absurd proposition in the volume is, that, granting the existence of a virus, the punctured wound made by a bite would not be favourable for its absorption: it is only necessary to mention this, to show the extent to which the author’s judgment is misled by his preconceived opinions. Immediately after this follows the assertion that “a wound from a lancet armed with poison would be subject to no such objections, and yet it has failed in every instance to produce the effects reported to take place from the puncture of the tooth.” Now, this is one among numerous instances in

which the author shews his ignorance of the subject on which he has taken upon himself to descant. We beg to inform him that Magendie and Breschet have produced rabies in the dog by inoculation with the saliva of a hydrophobic man,—an *experimentum crucis* which outweighs Mr. White's entire volume. The following short quotation will at once shew the manner in which the subject is handled, and justify the severity of our censure. Alluding to the similarity of tetanus to hydrophobia, he says, "May it not have happened, in this mad-dogmatical wonder-loving age, that men have existed who wanted an intention to mark a distinction, when such distinction would interfere with established dogmas, and go far to spoil the trade of mystery?" And continues: "If this disease, this mystifying Bo! catch-ye! *Hydrophobia*, have indeed a claim to our credence, as arising from a specific virus, the claim may be readily shewn. What is this *virus*?—where is it to be found?—and, when procured, will experiment confirm its reputed effects? It either was never found, or experiment has never made that finding known to the world. I would act fairly in argument, but I do not feel myself called upon to dispute (and I assume the strain of argument only from courtesy to those who hold different opinions,) on what has never yet been proved to have existence. I would rather the onus probandi, in that particular, lay on the shoulders of its advocates. I more than doubt, I have, by my conduct, most unequivocally denied that I believe such a *virus* to exist; and I call upon its supporters to prove its existence, before they attempt to explain its nature or attributes."

The inaccuracy of the assertion in the first part of this quotation, with regard to the result of experiments with the poison, we have already shewn: with respect to the conclusion,—that we must prove the existence of the virus before we explain its effects,—we would beg to enquire whether the same does not equally apply to poisons the existence of which no one doubts—except, perhaps, Mr. White. We ask the same questions concerning marsh miasmata which he has done concerning hydrophobia,—“What is this virus? where is it to be found? and, when procured, will experiment confirm its reputed effects?” It is, like the virus of hydrophobia, a poison which we know only by its effects, and, in fact, this is the state of our knowledge with respect to many morbid phenomena.

The chief argument, however, and that on which the author evidently lays most stress, is the fact of a dog, supposed to have been rabid, having bitten six individuals, none of whom

at the time the statement was drawn up, had become affected with hydrophobia. It is thus imposingly set forth, "*Particulars of a Case of Madness in a Bitch, by which a Woman, four Children, and the Author, were bitten.*" The story is too long for quotation, occupying no less than twelve closely printed pages; but all that is essential may be very soon told. On the 22d of May, 1825, four children were brought to the author, having been bitten two days before by a dog supposed to be mad; the wounds were freely scarified, and then had oil of turpentine applied to them. Having ascertained where the bitch was, he went to obtain possession of her, and he informs us that there was then "no appearances unusual" about her,—“she seemed well and playful.” Indeed, so little did our author apprehend any mischief, that he suffered her to put her fore-feet on his knee, and “snap in seeming puppy friendliness” at his hands. On the 23d “she ate heartily of some raw sheep’s liver, but did not drink much of the water.” On the 24th Mr. White was roused early in the morning with the information that the dog had escaped, and, in securing her, he was bitten “in two places slightly on the fingers, and then once rather severely” in the right arm; the wounds were not washed for several hours, and no remedies of any kind were applied. Next day (25th) there was a decided alteration in the dog’s manner, she tore every thing within her reach, and flew at those who went near her “open-mouthed;” and, in the afternoon of this day, the poor woman to whom the animal had belonged was bitten in the cheek. This woman, having imprudently returned on the 26th to feed the dog, was again bitten “severely in several places on the hands and arm.” Much, and naturally, alarmed, she requested Mr. White to apply caustic to the wounds or cut them out; and, as he most unjustifiably refused to do either, she went to another surgeon, who did both. The author adds, in a sneering manner, “that gentleman, however, somehow left untouched the wound in the face, (which probably was the woman’s fault, who, being neither old nor ill-looking, might not like to have the caustic prey upon her damask cheek. Be this as it may, this wound and one or two other slight touches on the finger escaped Mr. Coleman’s eyes, and consequently Mr. Coleman’s knife and caustic.” On the morning of the 27th the dog was found dead, having taken no water and very little food since the 25th.

Let us now examine the degree and kind of evidence afforded by this case. Four children were bitten by a dog, which two days after, by the author’s own shewing, presented

*no unusual appearances*,—which was *lively and playful*, and which three days after *ate heartily, and drank some water*.\* Is it usual for rabid dogs to eat and drink, and to be lively and playful? The four children had the wounds freely scarified, and oil of turpentine applied,—means which it is not unreasonable to suppose, in the event of the animal having been rabid, may have tended to prevent the development of the disease in them :—a circumstance which, therefore, destroys all argument deduced from these cases. With regard to the case of the woman, it is attempted to be shewn, that although some of the wounds were excised, and caustic applied, yet others were left untouched. Is it probable that a surgeon being applied to under such circumstances—the author having previously endeavoured “to calm the woman’s fears, but without effect;”—is it likely, we ask, that any surgeon, thus urged by the wishes of his patient as well as by his own judgment, should have left the operation incomplete, when any degree of incompleteness must have frustrated the intention altogether? It is not probable,—and therefore we infer that in these other wounds their extreme slightness, (probably without any abrasion of the skin,) induced the surgeon to regard their excision as unnecessary; and we are the more confirmed in this view of the subject from the manner in which even the author has expressed himself. Alluding to the wound in the face, he says, this, and “*one or two OTHER SLIGHT TOUCHES ESCAPED, &c.*” On viewing the matter dispassionately, we think our readers will agree with us, that the author’s own case is the only unexceptionable one. But we shall grant, for the sake of argument, that the dog was really rabid, and that all the cases present fair instances of individuals who must have been inoculated with the poison,—if there be any such thing,—and then ask, what is thus proved? Why, that five† persons may be bitten by a mad dog, and all escape the disease. But so far is this from being any thing new, that Dr. J. Hunter in his excellent paper on hydrophobia, gives an instance of *nineteen* persons who were bit by a rabid dog, without one of them taking the disease;—but then it happened that one more was bit, *and he did take it*. In every such question, one positive case outweighs an hundred, or any given number, of such as are only negative: we would therefore recommend Mr. White to remember the fable of the pitcher which was carried to the well in safety

\* On the 24th she was observed “to bite one or two dogs,” but it is not stated that any of them became rabid.

† One of the children was drowned soon after, and therefore cannot be taken into the account.

ninety-nine times, and to desist from the repetition of what he facetiously calls his "*little experiment*."

If there be no such disease as hydrophobia communicable by a dog, how is it that individuals so frequently become affected with this dreadful malady after having been bitten? How is it that children become hydrophobic who are not even aware of the existence of such a disease, and long after the immediate effects of the fright have passed away? How is it that the lower animals become affected, in whom no consciousness of the impending evil can be supposed to exist even for a moment? We put these questions to Mr. White, the rather that he has chosen for his motto,—

"Felix qui potuit rerum cognoscere causas."

For our own parts, we are of opinion, that, in order to give any value to the arguments of our author or to his experiments, it would be necessary to shew unequivocally that the bitch *was* mad, and the man who suffered her to snap in "puppy friendliness at his fingers" *was not*.

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*An Account of the Morbid Appearances exhibited on Dissection in various Disorders of the Brain; with Pathological Observations, to which a Comparison of the Symptoms, with the Morbid Changes, has given rise.* By THOMAS MILLS, M.D. Licentiate of the King and Queen's College of Physicians.—8vo. pp. 239. Dublin: Cumming, and Hodges and M'Arthur. Longman and Co. London. 1826.

THIS work consists of a set of cases, ranged under the heads of Hydrocephalus, Cephalic Fever, Apoplexy, and Epilepsy. As may be conjectured from the title-page, most of the patients died; and the history of each case is separately given, first with reference to the symptoms and treatment,—next the appearances on dissection,—and, lastly, we have a short comment. Nothing can be imagined less inviting to the reader, or more difficult of analysis.

There is unquestionably a great similarity in the morbid changes found in the heads of those who have died of diseases, which have very different places in our nosological arrangements. This fact seems to have made a strong impression upon the author, who asks, "Shall the links of the great chain which binds cause to effect be here rent asunder?" In a word, the line of argument adopted is this,—because effusion of fluid, thickening of the membranes, or rupture of vessels, are the most frequent appearances in those who have died with cephalic symptoms, therefore, all diseases



in which these phenomena present themselves are very closely allied; and even typhous fever may pass into apoplexy, epilepsy, or hydrocephalus. But it appears to us, that before any reasoning of this nature can be admitted, it will be necessary to ascertain how much of the post-mortem appearance is to be regarded as the cause, and how much as the effect, of the disease.

To give our readers a general idea (and we can do no more) of the author's opinions, and the manner in which he has illustrated them, we subjoin two extracts,—the former from the Preface, and the latter being a case selected on account of its brevity.

“Several cases and dissections are here detailed of hydrocephalus, cephalic fever, apoplexy, and epilepsy.

“These are considered distinct and independent diseases, requiring a distinct and peculiar mode of treatment; yet, when we attentively examine the phenomena and course of each,—when we compare them one with the other, and witness the morbid appearances exhibited in all, and the effects of the same remedies, we shall be compelled to acknowledge that these diseases are closely allied, and, in the true spirit of philosophical research, be disposed to allow that the morbid actions which produce effects so alike, cannot in their nature be dissimilar.

“In regard to these disordered actions, various modifications must occur, proceeding from the intensity and variety of the cause,—the constitution, age, sex, previous habits, and diseases of the patient,—the condition of the atmosphere, and other incidental circumstances.

“It is a remarkable fact, that these diseases of the brain pass and re-pass one into the other:—Epilepsy, for example, often terminates in apoplexy, and apoplexy in epilepsy; cephalic or typhous fever sometimes passes into apoplexy, sometimes into epilepsy, but most frequently into hydrocephalus; and hydrocephalus is often accompanied in its progress by an epileptic or apoplectic paroxysm.

“The phenomena of these diseases likewise merit the serious attention of the reader: in each he finds the prominent symptoms to be headache, delirium, stupor, coma, sense of weight or fulness of the head, vertigo, tinnitus aurium, convulsions, paralysis of the sphincters and other muscles; all which are indicative of disordered actions of the vascular system of the brain, and of a disturbance of the sensorial functions. To these symptoms we may add, a pulse varying in strength, frequency, and regularity, a varying temperature of the skin, and an irregular state of the secretions.

“To these remarkable circumstances I shall subjoin the appearances most commonly discovered in the brain on dissection,—viz. effusion of serum, coagulable lymph, or blood, thickening of

the membranes, rupture of blood-vessels, or formation of purulent matter.

"Nor can we pass over in silence the remedies usually employed with a view to the cure of these disorders, which consist, for the most part, in blood-letting, general and topical; in blistering; in the exhibition of aperients, mercurials, antimonial, and sudorifics; and in the use of counter-stimulants.

"Further, in regard to their prevention, we find all practitioners agreed as to the propriety of adopting the same regimen, and of establishing one or more drains in the head or its immediate vicinity.

"I now beg leave to submit these matters to the consideration of the reader, and then I would ask—Can these disorders of the brain be looked upon as distinct and independent, requiring a distinct and peculiar mode of treatment?"

*"A Case of Hydrocephalus, supervening to Measles."*

"July, 1821.—Mrs. B——'s child, æt. sixteen months, Baggot-street; during the last week has laboured under hydrocephalic symptoms: moaning, sighing, vomiting, knitting of the eyebrows, frequent opening and rolling of the lips, præcordial oppression, convulsions, with a pulse varying in strength, frequency, and regularity,—at one time 130. Has been in the country, in consequence of some delicacy of constitution and of cough, occasioned by measles, which appeared in this child about a month ago: the eruption was copious and the fever high, attended by a great degree of languor and oppression. Leeches have been applied to the temples, and blisters to the head and nucha; calomel and aperients have been administered. Dr. Labatt in attendance.

July 1st.—Is able to sit up in bed; sees, hears, and swallows; pupils natural; pulse eighty-six, regular; fæces greenish.

Pulv. ex Cal. et Rheo.

July 2d.—Convulsions, stupor, delirium; pulse 120, irregular and intermitting; face alternately flushed and pale; moaning and sighing; fæces green, yellow, and curdy; pupils contracted.

Vesicæ. occipiti. En. Tereb.

Cal. c. Opio. Baln. tepid.

"July 3d.—Nearly as yesterday.

"July 4th.—Died this morning.

"Dissection, by Mr. BUCHANAN and Mr. BRADY.—Serous effusion is perceptible between the arachnoid membrane and pia mater.

"Considerable turgescence of the vessels on the surface of the brain. The depressions between the convolutions are filled with serous fluid.

"Lateral ventricles distended with a watery fluid, about an ounce of which was collected: a large quantity was lost.

" Gall-bladder distended with dark-coloured bile.

" *Observations.*—It is not unusual to see hydrocephalus supervene to measles.

" Does not this point out the necessity of early depletion in measles, especially in children predisposed to hydrocephalus, with a view to obviate the occurrence of so fatal a malady?

" Is the inflammatory affection of the skin in measles communicated to the lining membrane of the brain?—or does the general excitement of the skin, and the suppression of perspiration, induce congestion and excitement of its vessels?

" Here the symptoms were indicative of hydrocephalus, and are accounted for by the appearances after death." (P. 50.)

Numerous cases more or less similar are detailed, and the above may be regarded as a fair specimen of the manner in which the subjects are treated.

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*Observations on M. LAENNEC'S Method of forming a Diagnosis of the Diseases of the Chest by Means of the Stethoscope, and of Percussion; and upon some Points of the French Practice of Medicine.* By CHARLES SCUDAMORE, M.D. F.R.S. Member of the College of Physicians in London; Honorary Member of Trinity College, Dublin, of the Medico-Chirurgical Society of Edinburgh, and of the Medical Society of Paris; Member of the Medico-Chirurgical Society of London; Physician in ordinary to his Royal Highness the Prince Leopold of Saxe-Coburg, &c. &c.—8vo. pp. 123. London: Longman and Co. 1826.

WE sent this little volume to one of those gentlemen to whom we are indebted for occasional assistance: it was returned with the laconic answer—*Ex nihilo nihil fit*; and a perusal of the work has not disposed us to differ much from this estimation of its merits.

The first part relates to the stethoscope, and consists of a few desultory remarks upon the subject, apparently made during a very short visit to Paris; but containing not a single fact or observation which has not been repeatedly mentioned in the various works on Mediate Auscultation, which have recently been published either on the continent or in this country. Our readers, therefore, may relieve themselves from any apprehensions of our again entering upon this discussion. For a full account of the stethoscope, and our opinions regarding it, we beg to refer to our review of Dr. Stoke's work in the preceding volume.

The second part consists of general observations, and embraces a multiplicity of subjects treated in a cursory and rather an unsatisfactory manner. We are sorry to speak thus harshly of the performance of any one, particularly of an author whose former writings hold so respectable a rank.

In order to justify these remarks, therefore, we beg to inform our readers that the volume consists altogether of only 123 pages, in a large type and with wide interstices, and that in this short space the following subjects are discussed, and in the following order:—The stethoscope, p. 21; the buffy coat of the blood, p. 22; the stethoscope, p. 23, 24; the buffy coat of the blood, p. 25; the use of digitalis, p. 27; the stethoscope, p. 28; phthisis pulmonalis, p. 30; cegophonism, p. 36; the different rales, p. 37; disorder of the heart, p. 38; disorder of the aorta, p. 41; action of the heart, p. 42; general conclusions, p. 46; introduction of the general subject, p. 47; hospitals in Paris, p. 49; chemistry and morbid anatomy, p. 52; use of calomel, p. 53; use of lavemens, p. 55; use of leeches, p. 59; cupping, p. 61; principles of bleeding, p. 64; French practice of medicine, p. 63; la medecine expectante, p. 64; principles of practice, p. 65; doctrines of Broussais, p. 66; treatment of enteritis, p. 75; gout, p. 76; rheumatism, p. 77; tisanes, p. 78; case in regimen, p. 79; cutaneous diseases, p. 80; tartar emetic, p. 82; sulphate of quinine, p. 88; acetate of morphine, p. 91; black drop, p. 92; hydrocyanic acid, p. 93; nux vomica, p. 95; strychnine and brucine, p. 99; emetine and veratrine, p. 101; general observations, p. 103; water of the Seine, p. 106; case with the stethoscope, p. 109; pathological observations, p. 118; conclusion, p. 123.

Such are the headings of the pages, as given by the author himself, and it is obvious that a volume so constituted bids defiance to any thing like a general analysis. Such of the observations on the subjects above enumerated as appear worthy of notice, we shall take an opportunity of inserting in our COLLECTANEA, under their various departments.

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*Répertoire général d'Anatomie et de Physiologie, Pathologiques, et de Clinique Chirurgicale; ou, Recueil de Mémoires et d'Observations sur la Chirurgie, et sur l'Anatomie et la Physiologie, considérées dans les tissus sains et les tissus malades.* Numéro 1, tome I; trimestre de 1826.—Paris. To be continued quarterly; with Plates in a separate Atlas.

FROM the well-known celebrity of the contributors, who are understood to be the principal supporters of this work, it may be reasonably imagined that much interesting information will be contained in it. We intend, therefore, to give an abstract of the succeeding Numbers,—at least so long as they continue to answer our expectations. Such articles as we may not deem interesting to our readers in general, we

shall pass over without any formal notice, in order that we may afford space for the consideration of the more valuable communications.

The first article, for instance, which arrests our attention can be but of local interest, and will be therefore briefly dismissed. It is a Report made to the Royal Academy of Sciences by M. Dupuytren upon a Memoir of M. COSTA, entitled, *General Considerations on the Epidemic which ravaged Barcelona in 1821, and upon the Means adopted by Government to prevent its Extension*. The committee appear to have had considerable difficulty in coming to any conclusion, in consequence, not only of the conflicting hypotheses, but likewise of the contradictory facts they had to examine.

M. Costa has adopted the fundamental axiom of the theory of infection, "that the yellow fever can never be transmitted beyond the focus of infection, and that the disease vanishes in the focus in which it originated." We cannot venture to enter upon the oft-disputed, and yet unsettled, question of the contagious or non-contagious nature of the yellow fever. The opinion of the committee adds nothing to our knowledge. "They conceive that, in the present state of science, it is impossible to determine whether the yellow fever is or is not contagious in every case." We must hazard one recommendation to those who enter the field of discussion upon this highly important subject,—that they will first state the precise definition they apply to the terms "contagion" and "infection." The contagion of one writer is the infection of another; and it has not unfrequently happened, from the want of the preliminary arrangement which we advise, that, after a very warm contest, it has been discovered that no other difference of opinion existed than could be removed by a clear understanding of the import of the terms respectively employed by the philanthropic opponents.

Upon the vitally important question of the necessity of guarding against the extension of certain diseases, by lazarettos, quarantines, and purifications of every kind, the committee very rationally observe, "that the means pursued for ages, in consequence of the conviction of the contagious nature of certain diseases, ought not to be abrogated until it shall have been demonstratively proved that such maladies are not contagious. So far from this proposition being firmly established, it is still warmly contested. We cannot, therefore, agree with the author in his opinion of the propriety of abolishing the means hitherto had recourse to. They ought undoubtedly to be continued, until the fallacy of the doctrine which has led to their adoption be satisfactorily proved."

Our readers are doubtless aware that the non-contagionists deprecate the employment of the means which are usually adopted, to prevent the spreading of diseases commonly reputed to be contagious. They, tell us, on the contrary, that the more we scatter the patients the better; and that particular receptacles for the sick, as well as quarantines, &c. are useless, and even dangerous.

The next paper, *Upon a New Species of Extra-Uterine Pregnancy*, by M. BRESCHET, was published in the last volume of the Medical and Chirurgical Transactions; we shall, therefore, be brief in our notice of it. But three species of extra-uterine pregnancy have yet been admitted, according to Breschet: 1st, abdominal pregnancy, *graviditas abdominalis*; 2d, pregnancy of the Fallopian tubes, *graviditas tubaria*; and 3d, ovarian pregnancy, *graviditas ovaria*. M. Breschet mentions a fourth deviation from the usual course of nature, and proposes to designate it by the name of "pregnancy in the substance of the uterus," *graviditas in uteri substantia*. Seven cases of this species of extra-uterine pregnancy are mentioned by the author, and are illustrated by very neatly executed plates.

The difficulty of accounting for these anomalous cases, is confessed by M. Breschet; and he does not flatter himself that the suggestions he has hazarded upon the subject are conclusive.

A paper of M. LOBSTEIN, *Sur la Kirronose*, is the next in succession. The term "kirronose," is employed to signify a disease of the embryo and foetus, in which the serous membranes are tinged of a beautiful golden yellow colour. This affection differs from common jaundice, inasmuch as it does not attack the parenchymatous cellular tissue of organs, or the skin, the ordinary seats of icterus. The first time M. Lobstein discovered this disease, was in two embryos of five months. The peritoneum was very highly coloured; that part of the membrane lining the posterior surface of the abdominal parietes was of the deepest yellow. Independent of this appearance, the viscera were in a natural state. There was no effusion contained in the peritoneal sac. The same phenomena were observed in a second embryo. The peritoneal lining of the abdominal muscles was in this case most highly coloured, together with the omentum and the external tunic of the liver. The pleura costalis, the diaphragmatic and pulmonic pleuræ, the pericardium, and the surface of the heart, were also yellow.

Within the cranium, the same appearance was seen upon the dura mater and arachnoid membrane. The thyroid gland, and the adjoining parts, were equally tinged with the same colour.

Other instances of a similar nature are mentioned by the author. He was at first of opinion that the yellow colour of these embryos was to be found only in the serous membranes; until, upon further investigation, the brain and spinal marrow were examined, and the same appearance was seen in them. The colour of the spinal cord was particularly deep, not only upon the external parts and the enveloping membranes, but even in the interior of its substance. By the aid of a microscope, it was perceived that the cord was composed of small particles, of a citron colour, mingled with a white pulpy matter, as if a fine yellow powder had been incorporated with a soft and semi-transparent jelly.

M. Lobstein found, upon extending his researches still further, that the two yellow bands, or lines, which he had observed in three embryos affected with "kirronose," upon the sides of the vertebral column, were the great sympathetic nerves; the natural colour of which had been changed into a citron yellow, which was also visible in their internal structure.

The yellowness of the serous membranes and of the nervous pulp, is not the effect of any colouring matter foreign to the parts; for it is impossible to deprive them of this tint, either by ablation or infusion in water or alcohol. Embryos preserved for seventeen years in spirit of wine, still retain the colour they did when fresh and recently dissected. It would appear, therefore, that this colouring matter is inherent in their structure, and that it forms a constituent part of the tissues affected. M. Lobstein professes his inability to determine the causes to which this disease ought to be referred. He has never seen it except in the embryo and fœtus.

We are promised, in a succeeding Number, a paper from M. BRÛSCHET, upon the Jaundice of Infants, in which the differences existing between that complaint and the kirronose of M. Lobstein will be pointed out.

Upon this subject we may observe, that a yellow hue on the surface of infants is not necessarily a symptom of jaundice. CULLEN and other writers have stated, that such a discoloration may also be the result of a peculiar yellowness of the serum of the blood, unconnected with the bile, analogous to the golden tint which we so frequently find diffusing itself over the surface of a contusion, when the finer and more limpid parts of the effused fluid have been carried off, and the colour-

ing matter of the serum that still remains behind is hereby become more concentrated.\*

A Memoir by M. ANDRAL, fils, upon the *Anatomical Appearances of Chronic Gastritis*, next claims our attention. The French and German physicians, it is known, have been very zealous in their researches upon this subject. Inflammation of the mucous membranes is thought by some of the continental sc̃avans to be the root from whence springs most, if not all, the diseases to which mortality is obnoxious. The object of the present paper is rather to discuss the alterations suffered by the parts from disease, than to estimate the frequency of the affection. The morbid appearances presented in subjects who have laboured under chronic inflammation of the stomach, are very accurately detailed, although we are not aware that much is added by the author to the information we previously possessed upon the subject. M. Andral appears particularly anxious, at the commencement of his paper, to show that in many cases, where the mucous membrane is found upon dissection of a natural appearance, but where the subjacent parts have undergone some morbid alteration, the mucous membranes were still the parts originally affected. In support of the probability of this opinion, many analogical facts are adduced. We believe it is not doubted that disease may commence in the mucous membranes,—that it may subsequently extend to other contiguous parts; and that the structure originally attacked may recover its healthy condition, in proportion as the diseased action under which it primarily laboured may be more or less completely transferred to other parts.

The dark appearance of the internal surface of the stomach, which, upon the examination of bodies, is so frequently the subject of discussion, is considered by M. Andral as the necessary consequence of the diminished velocity of the circulation in the capillaries of an inflamed part. It has been demonstrated by Hunter, that, whenever the arterial blood is arrested, or simply retarded in its course, it assumes the colour of venous blood. The experiments of Dr. Wilson Philip and others prove that such a retardation of the arterial blood during inflammation does exist, and hence the explanation of the altered colour of the internal tunic of the stomach.

It occasionally happens, that chronic inflammation of the stomach imparts to the mucous membrane a white milky appearance, very different from its natural colour. M. Andral

\* Vide Goon's Study of Medicine, vol. i. p. 404, and vol. v. p. 698, 2d edition.



has always found this colour combined with certain other alterations which more unequivocally announced the existence of inflammation, such as a thickened and hardened state of the membrane. Induration of the mucous membrane of the stomach is one of the best anatomical characters by means of which chronic gastritis may be distinguished from the acute species. The same observation will apply to all the membranous and parenchymatous tissues. Acute may frequently produce the same appearances as chronic inflammation. Thus, for example, in the mucous membranes, a morbid softening may be observed, whether the inflammatory action has been rapid or slow. An indurated condition of the part, on the contrary, belongs exclusively to chronic inflammation, and may be either partial or general.

In a recent number we have given some cases, from the German writers, of softening and total destruction of the mucous coats of the stomach. Such instances are very common, particularly in children. It would appear from the observations of M. Louis, who has paid much attention to this subject, that this preternatural softening of the mucous membrane of the stomach is frequently found in phthisical patients.

It is worthy of observation, that in most cases this morbid softening of the stomach is detected at the cardiac extremity of the organ. Inflammation of the pyloric end of the stomach, on the contrary, generally terminates in induration of the mucous membrane and the subjacent tissues. It is probable that this distinction in the effects produced by disease, depends upon some difference in the texture of the pyloric and cardiac extremities of the stomach. It is curious that inflammation appears disposed to produce one particular kind of alteration in preference to another, not only in the different tissues, but even in different portions of the same tissue. For example, acute gastritis rarely terminates by ulceration, whilst nothing is more common than that effect in acute inflammation of the intestines. It has been a subject of frequent discussion, whether the softening which is so frequently detected upon the internal surface of the stomach is invariably the effect of inflammation. M. Andral is induced, from his experience, to answer this question in the affirmative. His researches have been extensive upon this subject, and we receive his opinion with much deference; at the same time we would observe, that a softened and pulpy state of the mucous lining of the stomach has frequently been presented to our view in the bodies of infants who have exhibited during life no satisfactory marks of gastric inflammation. We agree

perfectly with M. Andral that it is not just to infer that inflammation has not existed in a part because it is found of a pale white colour. In many parts we cannot deny the existence of inflammation although no redness is visible. Such is the case with serous membranes that secrete pus, and which still generally preserve their natural colour. They frequently present no blush of redness, although they are much softened. It cannot be denied that the induration of the cellular tissue around old ulcers, is a product of inflammation; it is, however, in most cases, of a perfectly white colour. The softening of the transparent cornea is frequently neither preceded nor accompanied by redness, although this alteration in the texture of the part is undoubtedly the effect of inflammation.

In a succeeding paper M. Andral promises to examine the morbid alterations produced upon the other tunics of the stomach.

A short paper follows, *Upon some Pathological Conditions of the Cellular Tissue, situated under the Mucous, Serous, and Cutaneous Systems*, by M. DALMAS, fils; and also a description, by M. BRESCHET, of *A Congenital Malformation of the Envelopes of the Heart*. The former is not of much interest, and the latter could not be understood without the engraving which accompanies it.

In a paper of M. LAUTH, fils, upon the yet doubtful subject of the *Connection of the Placenta with the Uterus*, it is suggested "that the union of the placenta with the uterus is effected by means of vessels which are not sanguineous, and which present all the characters of lymphatics, that the function performed is a true act of absorption which cannot take place by means of veins, because venous absorption, if it does exist, takes place by transudation, and that consequently the function must be performed by the vessels described, because none but lymphatic vessels would be capable of modifying the blood of the mother, so as to accommodate it to the wants of the fœtus; and lastly, that the placenta appears to fulfil in the fœtus the functions which are subsequently to be executed by the intestinal canal, rather than those of the lungs as has hitherto been supposed."

The Number contains, besides, a set of *Cases of Lithotomy*, by MM. DUPUYTREN, BRESCHET, and SANSON;—these we shall take a future opportunity of laying before our readers.

## COLLECTANEA.

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Floriferus, ut apes, in saltibus omnia libant,  
Omnia nos, Itidem, depascimur anrea dieta.

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## PHYSIOLOGY.

*Observations on the Brain and Nerves in Monsters.*

M. TIEDEMANN, whose name is so well known as a distinguished anatomist and physiologist, has devoted much attention to the correspondence between certain imperfections in the brain and nervous system, and certain coexistent peculiarities in other parts, with a view of ascertaining whether the former have any influence in the production of the latter. He puts the following questions, and then offers some observations in reply.

1. When an organ is wanting, is there likewise a corresponding deficiency of the nerves?

2. When there is an excess in the number of the organs, is there a corresponding excess in the number of nerves, of the relative parts of the brain, and of the spinal cord?

3. What are the alterations of the nervous system which correspond to the imperfections in the development of the organs?

4. Is there a particular organisation of the nervous system, especially of the brain and spinal cord, which always corresponds to an anomalous organisation of the body in general, or any particular parts: and if so, in what does this consist?

The author has recorded eight observations, which relate to three different errors of organisation, and are regarded as throwing some light upon these questions.

1. *Congenital cleft palate, with defective organisation of the brain, and absence of the olfactory nerves.*—The particulars are these: An infant, who died immediately after birth, had hare-lip and division of the palate. On examining the brain, the hemispheres were found united at the fore part, the convolutions passing from one side to the other without any interruption. The olfactory nerves were completely wanting, and, in place of the ethmoid bone, there was a cartilaginous mass without perforations. The optic thalami were united at their upper part, and formed a sort of bridge over the third ventricle; the fornix was imperfectly developed.

A second case was identically similar, and a third nearly so; the brain having no division into hemispheres, and the olfactory nerves being absent. Analogous instances are to be found in the writings of Soemmerring and Rudolphi.

2. *Absence of the eyes and their nerves.*—M. Tiedemann saw a dog without eyes, the orbits being filled with cellular membrane. On examining the brain, two very soft threads were found in the place of the optic nerves: they arose from the optic thalami, and

from the tubercula quadrigemina: they made a turn round the peducles of the brain, and terminated, without uniting, in front of the pituitary gland. The other nerves of vision were entirely wanting. Similar cases are recorded by Malacarne, Osiander, Lobstein, and others.

3. *Union of the eyes; anomalous formation of the brain.*—A fœtus at the full time, had no nose nor any organ of smell; there was only one eye, and this had four eyelids; the globe appeared double behind, and had an oblong shape in front. The hemispheres of the brain formed a single mass, without any trace of convolutions; the olfactory nerves were entirely wanting, as well as the ethmoid bone; the optic nerves entered the orbit without uniting.

Several other cases are related, from which it appears that the union of the two eyes is always accompanied with the absence of the organ of smell, the fossæ nasales, the ethmoid, the vomer, and the ossa lachrymalia. In many there is no mouth. In every case the tongue is wholly or partially wanting. The hemispheres of the brain are united, so as to form a single mass, less in size than the usual dimensions of the cerebrum; and the surface generally presents no appearance of convolutions. The corpus callosum is not formed. The olfactory nerves do not exist in those monsters, who have not the organ on which they are usually distributed; and their absence is accompanied by a diminution in the size of the corpora striata, and the absence or imperfect development of the fornix and cornua ammonis. The optic nerves generally unite before they enter the orbit, although they sometimes enter separately, and in no case is there any communication between them.

From these and other instances Tiedemann concludes, that the configuration of the brain, and the arrangement of the nerves,—is intimately connected with the development of the respective organs, and that the nerves do not exist when the organs are not developed; and likewise that the development of the bones is in direct relation to that of the organs they are intended to inclose. (*Zeitschrift für Physiologie.*)

#### PATHOLOGY.

##### *Extraordinary Case of Hydrocephalus.*

Excepting the case spoken of by BARTHOLIN, wherein the head was four feet in circumference, a case related by Dr. GORBEL probably affords an example of one of the largest heads mentioned in the records of medicine. The child was born hydrocephalic, and is now six years old. At one year old, the head was nearly as large as it is at present. The size is so great, that the left ear is situated horizontally: the superior fontanel is five inches across. The hair has never grown at all. The whole body is extremely emaciated, and forms a singular contrast with the size of the head. The child weighs thirty-four pounds altogether, the head weighing

twenty-eight alone. The largest diameter of the head is fourteen inches two-thirds, and the greatest circumference thirty-one inches and a half. The rotundity of the cranium is not uniform, but presents various protuberances. The child eats well, and begins to speak imperfectly; his intellectual faculties appear to be tolerably developed. Both the urine and stools pass involuntarily. His sleep is profound, and but of short duration. (*Annali Universali.*)

*Disease from Spurred Rye.*

Mr. THEODORE F. KING, house-surgeon of the New York Penitentiary, describes thirty-two cases of morbid affection from this cause, occurring in that prison, in the fall of last year. Small livid spots made their appearance on one or both of the lower extremities, generally about the foot, without any local pain or weakness, or any perceptible general indisposition. After a few days, they would become more numerous, and extend up to the knee. Pain now occurred, — in one case very severe; and in some instances the patient lost the use of his lower extremities. The pulse was feeble, and seldom exceeded 100 in a minute. The face had a peculiar livid appearance. No unusual heat of the skin occurred. The tongue was slightly coated, and "very flabby." In several cases, there were considerable sores about the mouth, and in two or three hemorrhage from the gums; bowels generally regular; urine natural; death always preceded by "severe colicky pains;" usual duration of the disease about four weeks. Ten cases proved fatal. No mention is made of uterine pains occurring among sixteen females.

The only dissection made exhibited the intestines studded with dark livid spots, in the greatest abundance upon the large intestines, and the stomach inflamed, with a discoloration upon the under and larger portion. The uterus was natural.

Has any one ascertained whether the American ergot be or be not a different species from that of Europe? We have here, among thirty-two patients, not a single case of gangrene recorded. (*New York Med. and Phys. Journal.*)

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PRACTICAL MEDICINE.

*Prussic Acid.*

The hydrocyanic (prussic) acid is a valuable medicine, but requires, according to my observation, more care in the administration of full doses, than any other medicine. It may be given in small doses, usually, without any inconvenience. When its qualities were first proclaimed, it was too highly extolled as a remedy in phthisis pulmonalis; and, from consequent disappointment, I conceive that its just merits are not sufficiently appreciated. In some cases of hectic fever, attended with urgent cough, I have procured the happiest effects from the use of this medicine. I have not, with the adult patient, in any instance, prescribed more than

twenty-four minims as the total quantity in twenty-four hours; and usually have confined myself to the extent of fifteen, always commencing with small doses. (Dr. SCUDAMORE's *Work on the Stethoscope, &c.*)

#### *Leeches.*

The application of leeches, with a view to derive blood from the vessels which communicate with those of the lower bowels, is a practice quite common in France, and seems a favourite measure, whatever viscus of the body may be affected. I have no doubt of the utility of this mode of obtaining blood, when the lower part of the intestinal canal is in a state of congestion; and I may add, in many cases of irritation. A gentleman had been troubled with diarrhœa, which was often painful, for two or three months. It had resisted the usual treatment by medicine. By one application of leeches near the rectum he was cured. (*Ibid.*)

#### STATISTICAL MEDICINE.

##### *On the Duration of Human Life in France.*

At a late meeting of the Royal Institute of France, M. FOURIER read a very interesting Memoir, by M. BENVISTAN DE CHATEAUNEUF, on the Changes that the Laws of Mortality have undergone, from 1775 up to 1825. The Memoir contains a great many curious and interesting details, of which the following are the most remarkable:

In 1775, of every 100 children, 50	} died before two years old.
In 1825, ————— 38.3	

This difference may in a great measure be attributed to the introduction of vaccination.

Formerly, of every 100 children, 55.5	} died before ten years old.
In the present day, out of the same number . . . . . 47.7	

Formerly, of every 100 male children, only 21.5 arrived at fifty years of age;

In the present day, out of the same number, 32.5 come to fifty.

In examining the other epochs of life, and comparing them, the comparison is always in favour of the present time.

Formerly the Mortality was annually 1 in 30,

Now it is only . . . . . 1 in 39.

Formerly the Births were annually 1 in 25,

Now . . . . . 1 in 31.

Formerly Marriages were annually 1 in 111,

Now . . . . . 1 in 135.

The fecundity appears to have been the same formerly as at the present time; the births, as well as deaths, have diminished; and the term of human life is longer. One may discover a cause of the diminution of births in the fewer marriages that now take

place; but the number of foundlings is more than tripled since 1780. Population, however, must increase, because the term of life is longer; and it is the duration of life that must increase it, rather than the birth of a few children more, of whom death cuts off 48 in every 100 before the age of two years.

The difference in the population of France is also given, being the result of a mean of ten years for the first epoch, and of eight for the second.

In 1780, the Population was	24,800,000;	in 1826,	30,400,000,
— Deaths —	818,490	—	761,230,
— Births —	963,200	—	957,970,
— Marriages —	213,770	—	222,570,
— Natural Children,	20,480	—	65,760.

The Mortality at different ages was as following:

In 1780, from birth to 10 years of age, in 100,	55.5;	in 1825,	43.7;
— — 50	78.5	—	67.5,
— — 60	85	—	76.

It is thus shown that the lot of mankind, with regard to the mean duration of life, has prodigiously increased in France.

(*Revue Medicale.*)

#### SURGERY.

##### *Case of Spina Bifida in the Neck, cured by Puncture.*

M. LABONNE has recorded a case of this kind. A child was born with a tumor on the cervical vertebræ, as large as an orange. It was moveable, with red spots on the surface, and was of equal dimensions at every point, even the base. Various stimulating applications were resorted to; notwithstanding which, the tumor increased in size. At the end of a year, the infant was lively, and appeared well; but M. Labonne, urged by the entreaties of the mother to do something for her child, made five little punctures at the sides of the tumor, three days after the administration of a gentle purgative. A lemon-coloured fluid escaped, and continued to ooze for eight days: the tumor then diminished. Emollient cataplasms were laid over the part, and slight compression applied to the head. An eruption supervened; little papulæ, like flea-bites, appeared on the spine; they suppurated, and the tumor entirely subsided. The writer concludes with some observations on the superiority of the puncture, in such cases, over cautery, caustic, compression, and the other methods which have been proposed. (*Ibid.*)

*On Amputation at the Knee-Joint.* By Dr. NATHAN SMITH,  
Professor of Surgery, &c. Yale College.

For several years I had contemplated amputating at the knee-joint, whenever a case should occur in which it would be imprudent to operate below the knee, on account of disease in the bones

or soft parts, and in which the superior part of the articulation was sound. I had often performed the operation on the dead subject, and found that it might be so accomplished as to leave a very good stump.

A case warranting the operation occurred to me in April, 1824. Miss R. D—, of Brunswick, Maine, having a disease in both the bones and soft parts of the leg, of long standing, and so extensive that it was thought improper to operate below the knee; and, as the inferior part of the femur was sound, I amputated at the joint.

The operation is performed as follows:—Mark two points, one on the out and the other on the inside of the limb; the latter half an inch below the head of the tibia, and the other opposite to it.

Then draw a semicircular line from one point to the other, over the anterior part of the leg, and in such a direction that its lower part shall touch the lower part of the tubercle on the tibia into which the ligament of the patella is inserted, and then mark another circle on the posterior part of the leg, exactly corresponding to the former. The above lines limit the two flaps, the former of which will be formed of the patella and its ligament, together with the investing integuments; and the latter of the head of the gastrocnemius, the tendons of the flexor muscles, and the popliteal blood-vessels and nerves. The operator should first raise the anterior flap with the patella, which will expose the anterior part of the joint, and render the division of the lateral ligaments easy. Two or three strokes of the knife will then complete the section of the lower flaps, with the crucial ligaments.

In the case mentioned above, the patient recovered without the occurrence of any thing unpleasant. It was accomplished with less pain to the patient and trouble to the operator, than when the separation of a bone is required. The stump will obviously be more useful, as the lower part of it is formed by the patella, which becomes ankylosed to the femur.

This operation has been deprecated by many, on account of the complicated structure of the joint, and because of the violent and often destructive inflammations which result from wounds of the knee. By the operation, however, the most complicated part of the apparatus is removed, and the motions of the joint, which is the unfavourable circumstance in wounds of that part, do not irritate the wound. The synovial membrane immediately assumes the adhesive inflammation, and union is speedily effected. (*American Medical Review*, No. 2.)

#### *Operation for Phymosis.*

Having observed, in the last Number of the London Medical and Physical Journal, a notice of an operation, recommended, and said to be new, by M. J. CLOQUET, of Paris,—namely, the operation for phymosis, by dividing the prepuce in a direction parallel to the frenum,—I am induced to state that, in 1817, I performed that operation upon a young officer in the public service; and that I



have since repeated it, in 1824, upon a private patient. The first case originated in natural defect, the second in diseased action.

It has often astonished me that the expediency of this improvement had not suggested itself to surgeons of experience, who must have frequently witnessed the unseemly purse-like thickening of the prepuce, after the ordinary mode of operating in a line with the centre of the dorsum penis. Here, as is natural, the divided prepuce, distended by blood effused into its cellular texture from the bleeding vessels, contracts and gravitates, forming a tumor which never completely subsides; and sometimes demands amputation, from the inconvenience with which it is attended.

The instrument employed in the above cases was a sharp-pointed bistoury, which, being passed through the prepuce at its attachment with the glans, was afterwards carried with one stroke through the included parts; a mode which I consider very preferable to that of employing scissors, which must contuse and injure the parts in cutting them. (*Note from Mr. BOYLE.*)

4, Cleveland-square, St. James's;  
1st of June, 1826.

*A Case of Destruction of the Epiglottis, in which Life was prolonged for several Months.*

— Miller, in Cable-lane, in the year 1802, was afflicted with disease of the larynx, attended with ulceration, which had nearly destroyed the epiglottis, as appeared on examination after death, by Drs. HEWSON and ROUSSEAU: the impossibility of swallowing liquids exposed him to suffocation. His solid food was made into a ball, in order to prevent its descent into the glottis; and thus he protracted his miserable existence. His drink was supplied by a catheter introduced into the stomach, through which was injected water, broth, alcohol, and other liquids: as this process was troublesome, and required the attendance of the physician, he was necessarily left to the care of his wife. By the advice of Dr. Rousseau, the intestine of a chicken was directed to be swallowed by the patient, one end of which was fastened to one of his teeth by a ligature, and the other end terminated in the stomach; through which his wife injected broth and other fluid articles of nutriment, and supported him for several months: the intestine was changed as often as necessary. (*American Med. Recorder.*)

*Extirpation of an Ovarium.* By ALLAN G. SMITH, of Danville, Kentucky.

In this case the ovary, which was scirrhus, was extracted by an incision from the umbilicus to the pubis: the tumor was removed, previously surrounding it with a ligature of silk. The wound was closed with the interrupted suture, and the ligatures came away by the twenty-fifth day. The woman gradually recovered. (*Ibid.*)

## MISCELLANEOUS.

*Snails as an Article of Food.*

M. DE MARTENS states, that the annual export of snails (*Helix pomatia*) from Ulm, by the Danube, for the purpose of being used as food, in the season of Lent, by the convents of Austria, amounted formerly to ten millions of these animals. They were fattened in the gardens in the neighbourhood. This species of snail is not the only one which has been used as food; for, before the revolution in France, they exported large quantities of the *Helix aspersa* from the coasts of Aunis and Saintonge, in barrels, for the Antilles. This species of commerce is now much diminished, though they are still sometimes sent to the Antilles and Senegal.

The consumption of snails is still very considerable in the departments of Charente Inferieure and Gironde. The consumption in the Isle de Rhé alone is estimated in value at 25,000 franks; and at Marseilles the commerce in these animals is considerable. The species eaten are *Helix rhodostoma*, *H. aspersa*, and *H. vermiculata*. In Spain, in Italy, in Turkey, and the Levant, the use of snails as food is common. It is only in Britain that the Roman conquerors have failed to leave a taste for a luxury which was so much used by the higher classes in ancient Rome; though it would be very desirable, for the sake of the produce of our gardens, that some of the leaders of fashion in eating would, by introducing them at table, take the most effectual method of keeping our native species within due bounds. (*Edin. Jour. of Science.*)

## INTELLIGENCE.

## MONTHLY REPORT OF PREVALENT DISEASES.

DURING the latter part of last month (May) much rain fell, and the weather was comparatively cold; at this time numerous cases of rheumatism occurred, which, if not coming up to our idea of "rheumatic fever," were, nevertheless, in many instances sufficiently acute,—being attended with swelling, and occasionally with redness of the parts. On the sudden increase of temperature which took place at the beginning of June, a corresponding influence was produced upon the prevalent diseases, and it occurred to the writer to meet with many instances in quick succession, in which there was pain in the head, and giddiness, the last symptom being the most prominent and general. These constituted legitimate examples of determination to the head, and were speedily relieved by cupping on the back of the neck and free purging: the benefit derived from local bleeding was very decidedly superior to that resulting from a corresponding quantity

abstracted by venesection. In only one instance within the notice of the writer did these symptoms terminate in apoplectic seizure. This occurred in the person of a gentleman of plethoric habit, and having the "make" which is regarded as predisposing to apoplexy. The fit was deep,—the pupils wide and dilated, and unaltered by bright light,—the breathing so feeble as to require the application of a mirror before the mouth to ascertain its existence ;—no stertor, —the pulse about sixty, full ; twenty ounces of blood were taken from the arm and sixteen from the back of the neck, after which the patient spoke and swallowed some purgative medicine. Another practitioner deemed it proper to take fifty ounces more blood from the arm within two hours—the entire quantity lost thus amounting to *eighty-six ounces*. The patient remained in a state of great exhaustion, and was rather incoherent, for several days, but ultimately recovered without any paralytic affection.

After the hot weather had continued for about eight or ten days a considerable number of cases of low febrile affection occurred ; they were attended with much languor, foul tongue, loss of appetite, and sense of uneasiness, generally aggravated by pressure in the region of the liver. The treatment has consisted of from five to ten grains of calomel at night, followed by senna and salts next morning. Measles, Scarlatina, and Hooping-Cough have been met with, but scarcely in such numbers, with regard to any of them, as to constitute an epidemic.

June 23, 1826.

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*Lectures at the College of Physicians.*

EARLY in last May the theatre of the new College in Pall Mall East was opened for the purpose of resuming the annual lectures, of which the delivery has been necessarily suspended during the removal into the new edifice. The first were the Gulstonian lectures, which were delivered by Dr. Hawkins. The subject for the present year was Rheumatism, with the affections to which it gives rise of the heart and other internal organs. In the first lecture Dr. Hawkins gave a brief anatomical and pathological view of the different structures which appear to be the seat of rheumatism.

The second treated of the several forms and modifications of the disease, and much stress was laid upon the difference which may be observed in the local and constitutional symptoms of the disorder when situated in the fibrous textures, and when it attacks the synovial membranes.

The third lecture was devoted to the rheumatic affections of the heart and pericardium, the membranes of the brain, and structure of the eye.

These Lectures are advertised for publication.

Dr. Paris's lectures related to those chemical discoveries of the last twenty years, which have advanced our knowledge of the *materia medica*, and improved the practice of physic. They

commenced on Friday the 12th of May, and were continued every succeeding Wednesday and Friday at the same hour.

LECTURE I.—Friday, May 12th.—Introductory observations.—The theory of Lavoisier modified, but not subverted by modern discoveries.—The composite nomenclature of the French school requires reform.—*Discovery of Galvanism*.—Simple and compound galvanic circles.—Chemical powers of the voltaic pile.—Sir H. Davy's celebrated memoir on the chemical agencies of electricity.—Electrical views of Berzelius and Oersted.

LECTURE II.—Wednesday, May 17th.—The discoveries of Sir H. Davy, announced in his Bakerian Lecture, in 1808, form a new era in chemical science.—*Decomposition of the fixed alkalis*—Potassium—Sodium.—The *atomic doctrine*, or theory of definite proportionals—Discoveries to which it has given origin.—Dr. Wollaston's scale.—Practical applications of the doctrine of equivalents to pharmaceutical processes.

LECTURE III.—Friday, May 19th.—Sir H. Davy's important views respecting the composition of muriatic acid.—*Chlorine*.—Its compounds with oxygen.—The Lecturer's opinions with regard to the composition of certain bodies rectified by the preceding discoveries.—*Iodine*.—Hydriodic acid.—Hydriodates.

LECTURE IV.—Wednesday, May 24th.—The true nature of *prussic acid* ascertained by Guy-Lussac.—*Cyanogen*.—Preparation of *hydrocyanic acid*, according to the formula of Scheele and Vauquelin.—Its effects upon the animal system, and its value as a remedy.—The absorption of gaseous bodies by certain solid substances.—Condensation of the gases.—Cold produced by vaporization.—Oxygenated water of Thenard.

LECTURE V.—Friday, May 26th.—On the extensive agency of water in chemical combination.—*Hydrates*.—New theory of the formation of lead plaster.—Discoveries connected with the composition and habitudes of *alcohol*.—*Ether*.—Recent experiments upon its nature and formation.—Various species of it produced by the action of different bodies on alcohol.

LECTURE VI.—Wednesday, May 31st.—Recent discoveries in vegetable chemistry.—Extended series of proximate principles.—Their conversion into each other.—*Analysis of opium*.—Morphia.—Meconic acid.—Narcotine.—Salts of morphia.—Analyses of the several species of *Peruvian bark*.—Cinchonia—Quina.—The habitudes of their respective salts.—Salifiable bases of other active vegetables.

LECTURE VII.—Friday, June 2nd.—Veratria.—Atropia.—Hyoscyama.—Emeta.—Lupulin—Elatin, &c.—Analyses of several medicinal vegetables.

LECTURE VIII.—Wednesday, June 7th.—Experiments relative to the composition of the atmosphere.—*Eudiometry*.—Mr. Daniel's hygrometer.—The means of detecting the presence of animal effluvia.—A new train of research proposed for that purpose.—*Miscellaneous notices*.

Specimens of the newly-discovered substances were exhibited, and the various subjects illustrated by numerous experiments.

On Monday, June 26th, the Harveian Oration was delivered by Dr. Warren.

All these lectures were numerously attended,—in some instances many were unable to gain admission from the crowded state of the theatre.

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*Prize Question.*

THE Academy of Medicine in Paris have proposed a prize for the following question:—"To appreciate, by positive observations, the more or less destructive action which the emanations resulting from the exercise of certain industrious professors cause on the constitution, and to discover the best remedies for them." The academy is aware that being announced in such general terms the proposed problem embraces an infinite variety of objects, and that it opens almost a boundless field for physical, chemical, and physiological researches, which it would be necessary to unite before arriving at the solution of the question. The academy does not expect to obtain at first a finished work on so extended and complicated a subject; it only wishes to excite the zeal of learned men of all classes; it expects from them some positive results on certain kinds of industrious employment, and to fix more clearly the ideas on that subject, it cites the following cases; viz. 1st. Those where mechanical causes act in a destructive manner on the organs of respiration, as particles floating in the atmosphere caused by the spinning of cotton or wool, or by the sawing of hard woods, &c. 2nd. Those where there is an absorption of very attenuated or dangerous matter, as mercury in some officinal preparations, lead or its oxides, or copper, or arsenic. 3d. Those where gases exercise on organs a destructive influence,—as chlorine on hydrochloric acid, so much used in the present day—the action of nitrous gas or nitric acid—or of ammonia, which is disengaged more or less pure in a great number of decompositions of animal matter; the action of sulphuretted hydrogen, which has destroyed so many scavengers. The prize is 1000 francs, and will be determined at the public meeting of 1828. Essays on the proposed subject must be sent to the office of the Academy, Rue de Poitiers, No. 8, before the 1st of February, 1828.

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**MONTHLY LIST OF MEDICAL BOOKS.**

*Practical Observations in Surgery*; more particularly as regards the Naval and Military Service. By ALEX. COPLAND HUTCHISON. Second Edition, enlarged.

*An Exposition of the State of the Medical Profession in the British Dominions.*

*Experimental Researches on the Influence exercised by Atmospheric Pressure upon the Progression of the Blood in the Veins.* By DAVID BARRY, M.D.

*Recherches Expérimentales sur les Causes du Mouvement du Sang dans les Veines.* Par DAVID BARRY, M.D.

Farther Remarks on Hernia, in Explanation of the Nature of Strangulation, and of Obliterated Intestine, &c. By E. GEOGHEGAN, M.R.C.S.

Transactions of the Medico-Chirurgical Society of Edinburgh. Vol. II. With Plates.

An Essay on Cupping, &c. &c. By CHARLES KENNEDY, Surgeon.

Observations on the Efficacy of White Mustard Seed, in Affections of the Liver, Internal Organs, and Nervous System. By CHARLES TURNER COOKE, Surgeon.

The Surgeon-Dentist's Anatomical and Physiological Manual. By G. WAIT, Member of the Royal College of Surgeons.

PINNOCK's Catechism of Anatomy.

### METEOROLOGICAL JOURNAL,

From May 20th, to June 20th, 1826.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

May	Moon.	Rain gauge	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	M.A.	N.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			56	63	47	29.63	29.65	78	68	SE	NE	Cloudy	Fine	Fair
21	○		55	67	50	29.90	30.03	74	69	N	N	Fine		Fine
22			60	72	49	29.98	29.98	66	66	NNE	ENE			
23			64	70	53	29.85	29.75	60	76	NE	NNW			
24		.58	57	66	52	29.70	29.66	76	87	NNW	NNE	Overca.	Rain	Rain
25			54	59	58	29.57	29.52	87	90	N	NNE	S. Rain		Fair
26			58	62	54	29.56	29.66	82	80	E	E	Fair	Fair	Rain
27		.15	60	66	52	29.68	29.75	77	84	ENE	ENE	Cloudy	Show'ry	Fair
28	☾		61	64	51	29.74	29.67	71	84	NNE	N			Rain
29		1.85	52	55	50	29.68	29.76	82	94	N	NNE	Rain	Rain	
30			53	56	51	29.75	29.80	94	86	NW	NE			
31			54	59	51	29.80	29.75	88	89	ENE	E	Overca.	Fair	Cloudy
June 1			58	61	52	29.74	29.74	84	86	NE	NNE	Rain		Rain
2		.56	53	56	49	29.75	29.86	80	84	NE	N			Fair
3			63	66	52	29.92	30.06	67	68	NW	NW	Fine	Fine	
4			64	68	54	30.06	30.08	66	76	W	WNW			
5			63	67	56	30.14	30.16	66	65	NNE	ESE			Fine
6	●		69	71	59	30.16	30.08	68	69	SE va.	NNW			Cloudy
7			62	67	57	30.09	30.09	67	79	NW	NNE			Fair
8			68	69	55	30.10	30.06	66	64	NE	NNE			
9			68	75	57	29.89	29.84	63	69	NE	NNE			
10			62	74	56	29.83	29.90	67	76	ENE	N			
11			63	74	60	29.94	30.02	73	75	NNE	SE			Fine
12			68	77	63	30.10	30.13	68	68	NE	SE			
13			74	79	63	30.12	30.11	59	68	NW	W			
14			69	80	63	30.11	30.08	67	66	W	W			
15			73	78	58	30.02	29.96	60	62	W	NNW			
16			64	68	55	30.15	30.12	55	60	N	SSW	Cloudy		Cloudy
17			66	73	62	30.24	30.16	60	64	NW	WNW	Fine	Fine	
18			75	78	67	30.15	30.18	62	63	NW	N			
19	○		73	75	59	30.24	30.30	64	67	E	SSE	Cloudy	Fair	

The quantity of Rain fallen in the month of May, was 2 Inches 38.100ths.

### NOTICE TO CORRESPONDENTS.

The present Number affords a specimen of the Arrangement which it is our intention to adopt hereafter. We may remark, that, on the present occasion, the Cases have run somewhat longer than we anticipated, and, as a necessary consequence, the COLLECTANEA has been abridged to a corresponding extent.

The Profession in general, and our old Correspondents in particular, are respectfully invited to favour us with Cases, Facts, and information of any kind connected with Medicine and the collateral Sciences.

We have to acknowledge the receipt of Communications from Mr. HIGGINBOTTOM, Dr. GRANVILLE, Mr. HARROLD, Dr. SMITH, Mr. ALLEN, Mr. JEWEL, Dr. ALEXANDER, and Mr. TOD.

The case of Unsuccessful Transfusion in our next.

# THE LONDON Medical and Physical Journal.

NO 330, VOL. LVI.]

AUGUST, 1826.

[NO 2, *New Series*.

For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.—RUSH.

## CASES

OBTAINED FROM PUBLIC INSTITUTIONS, AND OTHER  
AUTHENTIC SOURCES.

### FOLLICULAR ULCERATION.

*Cases showing the Frequency of the Occurrence of Follicular Ulceration in the Mucous Membrane of the Intestines; during the Progress of Idiopathic Fevers; with Dissections, and Observations on its Pathology.* By CORNWALLIS HEWETT, M.D. Physician to ST. GEORGE'S HOSPITAL.

I. *Follicular Ulceration of the Mucous Membrane of the Intestines, without any tenderness on forcible pressure of the abdomen.*

MARY HANCOCK, aged thirty-two; admitted April 23, 1825.

Was attacked this day fortnight with rigors, vomiting, &c. but was not confined to bed till Tuesday se'nnight; when she was bled in consequence of giddiness, which however was unattended by headache. She has since been treated by a distinguished physician, in whose house she resided. Face flushed; eyes natural; skin dry, but not of pungent heat; pulse 108, small and soft. Is now perfectly rational, but has some slight subsultus. Tongue yellow-brown, and dry. Abdomen full, *but there is no tenderness on pressure*. One copious stool this morning. Has slept well last night, having taken an opiate; but had no sleep for several nights previously.

Hydrar. Submuriat. gr. v.; Pulv. Jacobi (veri), gr. iij. fiat pil. statim sumenda. Post horas tres sumat haustum sequent.

Liq. Antim. Tartar. ʒss.; Sulphat. Magnes. ʒi.; Aquæ distillat. ʒxj.; Syrupi, ʒi. M. Repet. 4ta quaque hora.

Lotio frigida capiti, et appl. Hirudines xij. fronti, vesperi; si redierit vertigo vel delirium.

April 24th.—Is stated to have slept well. Face less flushed. Continual, though slight subsultus. Pulse 100, rather small; tongue moist, apparently cleaning; bowels freely opened; skin dry, not pungent.

No. 330.—*New Series*, No. 2.

Hydrar. Submur., Pulv. Jacobi (veri), Extract. Pap. alb. aa gr. iij. fiat pil. duæ, h. s. sumendæ.

25th.—Bowels very much purged; tongue moist, brown towards the root; skin cool; cheeks have lately become flushed. Slept well; has less subsultus; pulse 108, very small.

26th.—Purgative acted eight times in the afternoon, and three times during the night: the evacuations watery, but of good bilious appearance. *Not the slightest tenderness of the abdomen.* Skin cool; tongue dry and brown; eyes rather injected. Is perfectly rational. She slept well during the first part of the night, but about twelve she became so much exhausted, that the apothecary gave her a little brandy and water, and administered an opiate glyster.

Mistur. Camphoræ, ʒ xj.; Carbon. Ammoniz, gr. v.; Confect. Aromat., Syrupi Aurantii, aa ʒ ss. M. Sumatur tertia quaque hora.

Misturæ Cretæ, ʒ xj.; Spir. Myristicæ, ʒ i.; Tinct. Opii, gtt. viij. fiat haustus post singulas dejectiones liquidas repet. Omitt. alia.

27th.—Bowels quiet. Camphor draught rejected.

Infus. Cascariæ, ʒ x.; Tr. Ejuudem, ʒ ij.; Spir. Ammoniz arom. ʒ ss. M. 3tis horis.

Vini Hispan. ʒ ij. 6tis horis.

Similar remedies were continued, and the symptoms went on without any important change till the 2d of May. *In each daily report, it is mentioned that the abdomen, though rather inflated, was not in any degree tender.*

May 2d.—Has vomited her medicines, along with some green fluid,—apparently vitiated bile. Two stools since yesterday, loose, but otherwise healthy. Pulse very frequent and feeble; skin quite cool. Said to have been noisy during the night, but is now quite rational. Some petechiæ have made their appearance about the back and abdomen.

Sulphat. Quinæ, gr. jss.; Extract. Anthemidis, q. s. ut fiat pilula, tertia quaque hora sumenda. Superbibendo haustum sequentem.

Infusi Rosæ, ʒ xj.; Acid. Sulph. dil. m. xij.; Syrupi, ʒ i. M.

Vini rubri, ʒ ij. 6tis horis.

3d.—No sickness since yesterday. Medicines retained. Tongue moist and clean; some appearance of aphthæ. Two evacuations,—the first tinged with blood, and the second chiefly consisting of it. Abdomen flabby, soft, and *without the slightest tenderness*; pulse 140; a spot on the nates threatens to slough.

Injectatur Emema, ex aqua frigidissima si redierint dejectiones sanguinæ et rep. si opus sit. Rep. medicamenta.

6th.—Continued to sink gradually, and died at three o'clock this morning. The abdomen became tympanitic, but *at no period was there any tenderness on pressure.* No blood observed in the stools since the 3d. The petechiæ did not increase; the medicines were retained; and she understood the questions put to her at the visit yesterday.

*Examination of the body, ten hours after death.*—*Abdomen:* On opening the cavity of the abdomen, the intestines, particularly the



colon, were observed to be distended with flatus; the peritoneal covering of the bowels was of a light lilac colour, and the mesenteric glands appeared turgid with ecchymosed blood. The mucous membrane of the ilium and colon was partially elevated, as if from blood extravasated under it. In the midst of these ecchymosed parts were observed the mucous glands projecting, and in some instances ulcerated. In some parts there was ecchymosis without any enlarged glands perceptible, either to the eye or to the finger: in others, there were enlarged glands studded over the membrane, with little or no ecchymosis; and yet in others there were chancre-like ulcerations, as large as a sixpence. There was no increased secretion of mucus, and the feculent matters which remained in the intestines were of a rhubarb colour. The liver was rather pale, but otherwise healthy.

*Thorax:* A portion of the diaphragm, and corresponding part of the cardiac extremity of the stomach, were eroded, by which a quantity of fluid had escaped into the thorax. There were three apertures,—one as large as three-fourths of the palm of the hand, and two others about the size of sixpence: the edges of all were quite sharp and clean, without surrounding thickening of the mucous membrane. They were considered to have occurred after death. There were about two ounces of fluid in the pericardium, and some old adhesions of the lungs.

*Head:* About two ounces of serum were effused between the membranes of the brain. There was no accumulation in the ventricles. The pia mater was rather injected, and the substance of the brain exhibited several red spots, on cutting it transversely.

*II. Follicular Ulcerations, with slight tenderness of the abdomen at the time of admission, but not experienced again until after a fortnight.*

Charles Sedgewick, aged twenty-two; admitted March 1, 1826.

Felt some indisposition three weeks ago, and in a week after was attacked with distinct rigors, and other precursory symptoms of fever. At present his tongue is excessively dry and dark, resembling old mahogany; he has tenderness of the hypogastrium, and tension of the abdomen; the bowels are stated to have been much relaxed during the whole attack; his pulse is frequent and fluttering; the skin is cool. After he had been an hour in bed, the skin became hot and dry, and the pulse increased in strength.

Calomel, Pulv. Jacobi (veri), aa gr. iv. fiant pil. duæ, statim sumendæ: post horas tres sumatur Haustus Sennæ.

Repetatur pilula una, hora somni et cras mane.

Haustus Salin. c. Liq. Antimon. Tartar. 3 ss. quater die sumendus.

March 2d.—Only one stool. Tongue becoming moist, but with a very thick fur adhering in the centre; pulse ninety-two to ninety-six, of sufficient strength; skin warm and dry. No delirium.

Calomel, gr. v.; Pulv. Jalap. gr. xij. M. fiant pil. iij. quam primum sumend.  
 Haustus Sennæ cras mane nisi interim plene dejic. alvus.  
 Repet. Haustus Salin. c. Liq. Antimon. Tartar.

3d.—Bowels very freely opened: motions liquid and dark. In other respects as yesterday.

Repetatur Haustus Salin. Omittantur alia.

4th.—Bowels very open: motions liquid, natural. Skin cool; pulse ninety-six to an hundred, soft.

Sulphat. Quinæ, gr. ij. in formâ pil. 4tâ q. hora; superbibendo haustum seq.  
 Infusi Rosæ, 3 xj.; Acid. Sulph. dilut. m. v.; Syrupi Aurantii, 3 i.; Tr.  
 Opii, m. ij.

8th.—Tongue moist and cleaning, but very slowly; skin cool; ulse eighty-eight to ninety, small and soft.

Vini Hispanici, 3 iij. quotidie.

9th.—Tongue has again assumed an unfavourable appearance. Abdomen tense; bowels have not acted since yesterday; pulse soft; skin cool.

Calomel, gr. iv.; Pulv. Rhei, Scammoniz, 3â gr. viij. fiat pulvis statim e melle sumendus, et cras mane si opus sit repetendus.

Mist. Camphoræ, 3 xj.; Carb. Ammon. gr. v.; Confect. Arom. 3i.; Syrupi Aurantii, 3 i. fiat haustus quater in die sumendus. Omitt. alia.

11th.—The purgative medicines were repeated yesterday. Bowels freely open during the last two days. Tongue seems inclined to throw off its crust. Abdomen less tumid and hard; still is not sufficiently supple. Pulse ninety-two, soft.

Ol. Ricini, 3 iij. c. Mucilag. Acaciæ et Aq. Cinnam. statim et omni mane.

Omitt. Haustus, et resunant. Pil. Quinæ. Habeat Vini albi, 3 iij. quotidie.

15th.—Bowels have been open three or four times in the day since last report: stools liquid, but otherwise natural. Pressure on the abdomen has been acknowledged to *give pain, for the first time since the day of admission*: the abdomen is no longer tense. Tongue very much loaded; skin hot, harsh, and dry; pulse 100 to 104, not so soft as heretofore. Says he has no uneasiness whatever, except the sense of weakness.

Hydrar. Submuriat., Pulv. Jacobi (veri), 3â gr. ij. in formâ pilulæ, 6tis horis.

Repet. Mistura Camphoræ, &c. Omitt. alia.

23d.—Medicines ordered on 15th have been continued. The bowels have been kept freely open, and the tongue is very much improved. The abdomen has *been rather tense*, but *not tender on pressure*. The pulse has become more expanded, varying from ninety to an hundred; and he has, upon the whole, appeared to improve, though very slowly. On the 21st, he complained of some sore throat, and the fauces were observed to be more red and inflamed than the slight mercurial action on the gums was capable of explaining. To-day, the glands under the angle of the jaw are swollen on the left side, and very painful.

Cataplasma Lini faucibus externis, quater in die renovandum.

Dr. Hewett's *Cases of Follicular Ulceration.* 101

Resum. Pil. Sulphat. Quinæ, gr. ij. 6tis horis. Superbibendo Haustum sequentem.

Acid. Sulph. dil. m. x.; Sulphat. Magnesiæ, 3 ss.; Syrupi Rosæ. 3 i.; Infusi Rosæ, 3 xj.

Repetatur Vinum. Omitt. aña.

26th.—Bowels freely open; abdomen is now supple. Tongue moist, but with some adhering fur; pulse very small and frequent; skin cool.

April 1st.—Continued to linger till this afternoon, when he died, in the eighth week of the fever. Little of importance took place in the train of symptoms since last report. The strength continued gradually declining, and the quantity of the stimulants was proportionally increased. The bowels continued to act once or twice daily, the stools presenting nothing remarkable in their appearance; the abdomen having latterly become sunk and hollow. Neither was there any pain on pressure till two days ago, at which time he complained equally when the pressure was applied to other parts,—as over the ribs. The pain and tenderness about the throat continued, and some muco-purulent matter was spit up. On the 30th, he complained for the first time of pain in the left side of the thorax, which continued till his death.

*Examination of the body, about twenty-four hours after death.*—

*Head:* Brain sound; about two ounces of serosity in the ventricles.

*Throat and Chest:* Abscess at the angle of the jaw, involving the neighbouring parts by burrowing into the surrounding cellular tissue, and even bursting into the larynx, a little above the left sacculus laryngi. Extensive adhesions of left lung; recent coagulable lymph. From six to eight ounces of fluid in the pericardium.

*Abdomen:* A considerable number of follicular ulcers, beginning in the small intestines, becoming more numerous and extensive towards the ileo-cæcal valve, and gradually disappearing in the colon.

III. *Case of Follicular Ulceration, existing during the period of Convalescence from Idiopathic Fever, and exciting fatal Peritonitis, although none of the ulcers had perforated the Peritoneum.*

On Friday, September 23d, ten o'clock A.M. 1825, I was sent for to see a maid-servant, aged thirty, in a private family.

I learnt that she had been long ailing (for six or seven weeks), with symptoms of fever; for which venesection and the appropriate treatment had been employed; that the fever had gradually assumed a decidedly remittent character, but had been so completely removed by Sulph. Quinæ, that, on Sunday last (the 18th instant), she had left her sick room, with the view of exercising herself in the house, though not yet sufficiently recovered to resume her ordinary work. On Monday night she had a distinct rigor. On

Tuesday morning was seen by a medical gentleman, who purged her with calomel and rhubarb. She did not then complain (or even on Wednesday morning) of any pain or tenderness of the body, but in the afternoon experienced an attack of pain in the epigastrium, and vomiting, for which she was immediately cupped, and had a large blister applied to the abdomen.

On the Friday morning, seven o'clock A.M. she had been bled almost to syncope for symptoms of unequivocal peritonitis. When I saw her, at ten o'clock A.M., there was exquisite tenderness about the right iliac region and hypogastrium, with dysuria, "deadly sickness," incessant vomiting, frequent and sharp wiry pulse, and dry blood-red tongue. The bowels had lately acted slightly; and she was perspiring profusely, having lately come out of a warm bath.

Venesection was immediately repeated, and again in the afternoon, followed by leeches in the evening. Venesection was repeated at two o'clock P.M. of Saturday. The bleeding was on all these occasions pushed almost to syncope; the blood was highly cupped and buffy. Only a temporary mitigation of the sufferings was obtained after each venesection. No purgatives, only enemata, were employed.

During the Saturday she retained two calomel-powders, each containing ten grains.

At eleven o'clock P.M. she was incessantly complaining both of the pain of the blister and also of the internal pain, which she compared, in her own emphatic language, "to a cauldron of pitch and sulphur burning within her." Skin was quite cold and clammy; pulse very frequent and feeble; and latterly she had occasionally been delirious for a few seconds, but soon recovered her intellects.

Sunday, eight o'clock A.M. she died, having retained her faculties quite clear until seven o'clock, when the last visit was paid by her medical attendant.

*Examination of the body, two hours and a quarter after death.*  
—Lungs beautifully healthy.

*Abdomen:* The peritoneal coat of the intestines had lost its proper degree of transparency, but there were no other marks of peritoneal inflammation; no effusion of coagulable lymph or serum in the cavity of the abdomen. Liver healthy. Gall-bladder distended with good bile. A quantity of bile was also observed in the stomach, of a green colour; but in the duodenum, and throughout the whole track of the intestines, the bile was found in large quantity, and of a perfectly good colour. The mucous membrane of the stomach was slightly inflamed, a pink or salmon colour pervading it universally—even the rugæ; while that of the duodenum and small intestines was perfectly healthy: that, however, of the caput coli, colon, and rectum, was inflamed. Low in the ascending arch of the colon, about an inch from the ileo-cæcal valve, were discovered two small, but deep, follicular ulcers; one of them half an inch long, scarcely one-

tenth of an inch wide: its base was not distinctly visible, being obscured by some protruding little masses of obstructed and enlarged follicles. In many other parts of the colon, though there was no visible ulceration, still there might be detected similar little follicles, enlarged and slightly elevating the mucous membrane. The mesenteric glands were very much enlarged and reddened: on cutting into one of them, it resembled in consistence the pulp of a white-heart cherry, and exhibited rather a deeper tint.

*IV. Case of Follicular Ulcerations, one of which penetrated through the peritoneal coat, and excited universal Peritonitis.*

Sarah Rawdon, ætat. twenty-three; admitted May 24, 1826.

Left service three days ago, and is stated by her attendant to have been noisy and delirious at night ever since: at present is perfectly rational. Says she has had a cough for three or four weeks, and became seriously ill only on this day se'nnight, with rigors and the usual premonitory symptoms of fever. Some days before her admission, a dose of jalap was administered, since which time the bowels have been much relaxed. The abdomen is very tense and tender. Had severe purging last night, with much pain in the belly, for which she took some brandy, and she says with great relief. Tongue dry in the centre, moist and clammy at the edges; pulse 112, soft; respiration short and hurried; eye natural; little or no headache.

Hydrar. Submur. gr. v.; Scammon. gr. xij. M. fiat pulvis statim sumendus.

Hydrar. Submur., Pulv. Jacobi (veri), aa gr. ij.; Mucil. Acaciæ, q. s. ut fiat pilula tertiis horis sumenda.

Hæustus Ammoniac acet. quater in die.—Lotio spiri'tuosa fronti, collo, et brachiis, si incalcescat cutis.

May 25th.—Has had only one evacuation, and that almost immediately after admission, (not kept). Abdomen distended, occasionally very painful; the pain moveable, and affecting different regions at different times: pressure excites pain, but so it does if applied over the ribs. Any movement gives pain. She is lying on the right side. Pulse 120, soft, small; tongue dry, brown; skin harsh, not hot. Was quiet during the night.

Ol. Ricini, ʒ iij.; Mucilag. Acaciæ, q. s.; Aq. Cinnam. ʒvj. fiat hæustus statim sumendus; et repetatur 2dis horis donec his terve dejectis alvus.

Mist. Camphoræ, ʒ i.; Liq. Ammoniac acet. ʒ iij.; Spiritus Ætheris Nit., Syrupi Aurantii, aa ʒ ss. 4tis horis.—Repetantur pilulæ.

26th.—Had marked rigors and vomiting in the course of yesterday, followed by cold clammy perspiration, and died in the evening.

*Examination of the body, (26th.)—Abdomen:* A large quantity of discoloured serous fluid, with universal peritonitis. An aperture, as large as a split pea, in the ileum. On examining the inner surface of the bowel, several follicular ulcers were found, but none of them had penetrated farther than the mucous and muscular coats, with the exception of the one above men-

tioned. That this ulceration had proceeded from within outwards,—i. e. that it had commenced in follicular enlargement and ulceration, producing erosion of the subjacent peritoneal coat, was obviously shown by the different size and appearance of the ulcer, as viewed from the side of the peritoneum or of the mucous membrane. The perforation of the peritoneum did not exceed the size of a split pea, while the erosion of the muscular and mucous coats extended over a space not less than a shilling; its margins being raised and jagged, and presenting an appearance exactly resembling that hereafter described as the effect of follicular ulceration. The mucous membrane of the stomach was highly vascular.

*Thorax:* Lungs partially hepatised.

*Head:* A small quantity of fluid between the arachnoid and pia mater, and also in the lateral ventricles.

*V. Follicular Ulceration reaching the Peritoneum, and exciting adhesive inflammation there, by which the part became agglutinated to the descending flap of the omentum, and the continuity of the intestinal canal was preserved.*

Eliza Parton, ætat. twenty, single; admitted March 16th. Abdomen was then tense, but not tender. She had been attacked with fever eleven days before. Died March 30th.

*Examination of the body, March 31st.—Abdomen:* In the lower part of the ileum, there were several follicular ulcers, one as large as half-a-crown, occupying the confines and part of the ileo-cæcal valve: it had nearly penetrated through all the coats, but fortunately the inflammation excited in the peritoneal coat had prevented its erosion, and had caused its adhesion to the descending flap of the omentum. In the ascending arch of the colon, there were several follicular ulcers, of the size and appearance of small-pox pustules: in its descending arch there were numerous black specks, indicating the obstructed orifices of the slightly-enlarged mucous follicles, like *acne punctata*, and clearly explaining the first step in the progress of disorganisation by follicular ulceration.

The mesenteric glands, corresponding to these follicular ulcers, were much enlarged and reddened.

*Thorax:* There was no increased vascularity in the bronchial membrane, or in that of the trachea; and little or none in the substance of the lungs.

*Head:* The lateral ventricles of the brain contained a very small quantity of fluid; the plexus choroides was pallid; the substance of the brain natural.

N. B.—This girl never had the slightest tenderness of the abdomen: indeed, it became soft and supple after the operation of the first purgative. Neither was there any blood in the evacuations; though there was visible a slow exhalation of blood from the gums and nose, forming a considerable accumulation of black sordes. The tongue also became aphthous, fissured, dry,

and black. There was also slight subsultus tendinum, but no movement resembling that of catching flies. There was night-delirium; but in the day she recovered her faculties, and retained them even on the day of her death.

*VI. Follicular Ulceration, fatal within eight days.*

Mary Hawkins, ætat. twenty; admitted November 26th, with fever of a week's standing, and the following symptoms:—She was in a state of high delirium; the temporal arteries throbbing violently, and the pupils much dilated; face pallid; pulse very frequent, but could not be easily counted, or its precise character ascertained, on account of the frequent convulsive startings of the muscles of the arms; skin warm and moist; tongue dry in centre; abdomen full, but not tense. Could not bear pressure on the right iliac region without expression of extreme uneasiness; the other parts of the abdomen were quite free from tenderness on firm pressure.

The medical gentleman, who had attended her previously to her admission into the hospital, stated that she had been ill about a week, with fever and suppression of the catamenia, from cold caught after dancing. There had been night delirium, some stupor and deafness by day, with torpid bowels. He had purged her freely, and given calomel, with antimonial powder, 4tis horis; and had taken thirty ounces of blood by cupping, the day before her admission.

The following means were employed in the hospital:

Applie. Hirudines xvj. fronti et temporibus statim. Glacies capiti rasæ.

Pulv. Jalapæ c. Calomel, gr. xxv. statim.

Calomelanos, Pulv. Antimon. aa gr. v. horâ somni.

She became tranquil after the application of the leeches and ice to the head; the pupils of the eyes resumed their natural state, and the subsultus tendinum was much diminished. The bowels acted once scantily. She died in the night, about twelve hours after her admission.

*Sectio cadaveris, (Nov. 27th.)—Head:* Brain natural, excepting for the presence of about three drachms of serum in the lateral ventricles, and also some small quantity between the membranes.

*Thorax:* The mucous membrane of the trachea and bronchia slightly injected with red vessels.

*Abdomen:* About the ileo-cæcal portion of the intestines, there were numerous enlarged follicles; some merely protruding the mucous membrane, others producing ulceration in it, with little or no redness. The mesenteric glands corresponding to these ulcers were considerably enlarged.

*VII. Follicular Ulceration, the abdomen being supple, and not tender.*

Charles Eynon, ætat. twenty-five; admitted November 22d. A week before his admission, he had been attacked with shiver-

ing, followed by fever and night delirium. At present there is slight bleeding from the gums, with accumulation of black sordes about the teeth; moist tongue; considerable deafness, but, when spoken to loudly, he attempts to protrude his tongue; pupils rather dilated, and sluggish in contracting. He does not acknowledge any pain upon pressure of abdomen, which is soft and flat. Bowels are relaxed, but no blood has been observed in the stools.

Died November 28th.

*Sectio cadaveris*, (November 29th.)—There was found extensive ulceration of the glandulæ aggregatæ, although pressure on the abdomen, tried daily, never excited any pain or complaint. Perhaps, in this case, the insensibility to pain may be attributable to the impaired functions of the cerebral system.

### VIII. *Follicular Ulceration, with the appearance of black puncta at the orifices of the follicles.*

William Gibbs, ætat. twenty-five; admitted November 21st, having been ill with fever some days. Obiit December 5th.

*Sectio cadaveris*, (December 6th, 1826,) displayed follicular obstruction, with black puncta at the orifices, like acne punctata, and follicular ulcerations in the ileo-cæcal portion of the intestines.

From the time of his admission until Saturday, November 26th, he appeared torpid and stupid; the pupils contracting sluggishly, the eyes having a lack-lustre appearance, and no satisfactory answers being given by him to the questions asked respecting his health: the tongue, however, was quite moist, and almost clean; the pulse about ninety, and soft; skin soft, and not particularly hot; abdomen fullish, and rather tender. He was delirious at night, and made frequent attempts to get out of bed. On the night of Friday, November 25th, very active diarrhœa came on; and, during the visit on the following day, I observed him in full possession of his faculties, which he retained until the moment of his death; the diarrhœa still continuing, though not so actively, and being accompanied with some tenderness of the abdomen. The immediate cause of death appeared to be extensive mortification of the left leg, spreading from a spot where he acknowledged to have received a blow some considerable time before.

### IX. *Follicular Ulcerations distinctly visible upon exposure of the cavity of the abdomen, so perfectly had the peritoneal and muscular coats retained their natural degree of transparency.*

Elizabeth Lawrence, æt. twenty, was admitted December 14th; had been then ailing eleven days with fever; died January 4th, 1826.

At the time of her admission, there was tenderness on pressure of the abdomen, but no swelling or tension of it; specks of blood, too, had been observed in the evacuations. She made no complaint of headache, but of a noise and ringing in her ears. The



intellects, however, were then quite clear, and remained so until night-delirium came on about a week before her death; but even then during the day she recovered the full possession of her faculties. The eyes retained their natural appearance, until within two days of her death, when the pupils became rather dilated. She was much distressed, too, by a harrassing cough.

*Sectio cadaveris, (January 6th.)—Head:* The brain was healthy, except that there was about half an ounce of clear serum in the lateral ventricles.

*Thorax:* The cavity of the pericardium contained about three ounces of clear serum. The mucous membrane of the larynx, trachea, and bronchia, was highly injected and inflamed; and the greater part of the lungs was so completely hepatised as to sink in water, only a very small portion retaining the property of crepitation.

*Abdomen:* The peritoneum was quite healthy, and so transparent as to allow us, immediately upon opening the cavity of the abdomen, to see numerous follicular ulcers, which began about the ileum, but were most frequent about the ileo-cæcal valve.

#### X. Follicular Ulcerations, some of which were apparently healing.

Nathaniel Shoultee, a German, æt. thirty-two; admitted Monday, July 3d, 1826. Lives in Pimlico. Shows his tongue when desired; seems to understand the questions put to him by his German companions, but fails in answering from weakness. He is now lying quiet. Present symptoms are—small, soft pulse, 144; sluggish pupils; conjunctiva natural, and no flushing of the face, though the forehead is hot; tongue moist, but furred; gums and membrane of cheek slightly affected by mercury; abdomen feels natural, but, when it was first pressed, he started with the expression of pain; but so also he did when pressure was made above the ribs, and soon afterwards he bore firm pressure on the abdomen without evincing any pain. Skin cool and clammy; respiration much hurried, and executed by the diaphragm alone, without any elevation of ribs by intercostal muscles.

His friend states that, on Wednesday, the 14th of June, he was attacked with fever, having been previously well; but cannot give any further particulars, excepting that, for the last three or four days, his evacuations have been passed involuntarily.

Radatur Capillitium, et applic. Lotio frigida.

Applic. Emplastrum Lyttæ nuchæ.

Mist. Camphoræ, ʒ ij.; Confect. Aromat. ʒi.; Carbon Ammoniac, gr. v.; Syrupi Aurantii, ʒi. M. fiat 3tiis horis.

Vini-albi, ʒ iij. ex Aquæ, repetend. prout deficient vires.

Hydrarg. c. Cretâ, gr. v. 4tis horis.

Olei Ricini, ʒij.; Mucil. Acaciæ, q. s.; Aquæ Cinnam. ʒvj. M. fiat haustus, cras mane sumendum.

Obiit early on the morning of the 4th instant.

*Sectio cadaveris, eight hours after death.—Brain:* Some small quantity of fluid between the arachnoid and pia mater, and great

congestion of the veins, running between the convolutions on the convexities of the hemispheres. Substance of the brain highly vascular, as was the plexus choroides. About two ounces of clear serum in the lateral ventricles, and also a large quantity in the theca vertebralis. There was no effusion of coagulable lymph about the pons varolii, or elsewhere.

*Thorax:* Lungs were in a state of congestion; but the mucous membrane of the larynx and trachea was only very slightly injected with red vessels.

*Abdomen:* The peritoneum retained its natural transparency, excepting in some nebulous patches of the ileum, found, upon opening the cavity of the intestines, to cover reticulated ulcers, presenting the appearance supposed to indicate the progressive healing of follicular ulcers.\* But, besides these eroded surfaces, the mucous follicles about the ileo-cæcal portion were much developed, with little or no surrounding inflammation, and passing into ulceration at their previously-obstructed orifices. The obstructed condition of these orifices was clearly visible in other follicles along the course of the colon, seen at an earlier stage of their enlargement, and was indicated by the black puncta, analogous to acne punctata.

The mesenteric glands were slightly enlarged, but very much reddened: one of them, when cut into, very closely resembled, in consistence and colour, the pulp of a red cherry.

#### PATHOLOGICAL OBSERVATIONS.

My first object, in detailing the above cases, has been to exhibit the origin and progress of the disorganising process, by which follicular ulceration is effected in the mucous membrane of the intestines, during the course of idiopathic fever.

A reference to the above post-mortem examinations will show that the disease seems at first to be limited to the mucous follicles, affecting both the glandulæ aggregatæ and solitariæ, more especially the former, where distributed over the ileo-cæcal portion of the intestines;—that their orifices may be seen plugged up with a dark and morbidly inspissated secretion;—that this secretion continuing, and being pent up within the follicle, in consequence of the obstruction of its orifice, tumefaction of the gland necessarily ensues, as in the sebaceous follicles in acne punctata; that these mucous glands may be seen in various stages of enlargement,—at first only slightly elevating the mucous membrane, and, by their protrusion of it, presenting an uneven granulated surface, like that of dried seal-skin;—that, in most instances

\* Vide Pathological Observations below.

the incipient tumefaction of the follicles, and in many instances their ulceration, takes place without any increased vascularity of the neighbouring surface;—that the disorganising process, by affecting many of the contiguous mucous glands, forms ulcers of the size of sixpence or a shilling, or even larger in some instances, without any increased vascularity, but more generally with slight redness and considerable thickening of the mucous membrane immediately surrounding the margin of the ulcer;—that the margins of the ulcer frequently appear, at least in the early stages, puckered, jagged, or fringed;—that the base of such ulcers often exhibits a rough irregular surface, with little projecting masses of enlarged and sloughing follicles, or presents a sloughy ash-coloured appearance, resembling that of chancre, or displays a dirty-yellow hue, from the bilious-coloured feculent matter adhering to it;—that the ulceration seems to commence sometimes at the apex of the tumefied gland, sometimes in the membrane protruded, and thus forced into ulceration by it;—that the work of disorganisation seems to be effected partly by the ulcerative, partly by the sloughing process;—that each individual follicle gradually sloughs off, in proportion as its neighbouring membrane is eroded by ulceration;—that this erosion extends gradually downwards, from the mucous to the muscular and peritoneal coats, sometimes, though rarely, perforating the latter, and then rapidly exciting extensive peritonitis, by the escape of foreign matter into the cavity of the abdomen;—that this perforation of the peritoneal coat is sometimes prevented, by the effusion of lymph from its surface, external to the ulcer, causing agglutination of it to some of the neighbouring convolutions of the intestines, or to the omentum;\*—that the mesenteric glands, communicating with such ulcers, are generally found increased in size and vascularity; and sometimes, when cut into, resembling, in colour and consistence, the pulp of a *Morella* cherry, or even that of a red cherry.

The symptoms, too, attending the recovery of some of the cases, hereafter to be described, seem to warrant the belief that such ulcers had existed, but had subsequently healed.

An additional, and I think conclusive, proof of the curability of intestinal ulcers, (already asserted, and very ably maintained, by Dr. P. Latham,) was afforded to me by the appearances discovered in the intestines of a sailor (George Gratlin), who, about fourteen months previously to his death, had experienced, while serving off the coast of Africa,

\* Vide Sectio cadaveris, Eliza Parton.

a severe attack of dysentery. From this he slowly recovered sufficiently to return to his duty, though subject ever afterwards to occasional irregularities of the bowels, and to an obscure sense of pain when forcible pressure was applied to the abdomen. He died December 22d, 1825, in St. George's Hospital, while under my treatment for a disease quite unconnected with his former dysenteric attack, and about fourteen months subsequently to it.

Upon examination of the intestines, the mucous membrane, from two or three inches above the ileo-cæcal valve along the whole course of the colon and rectum, appeared spangled with circular or irregularly-oval scars of former ulcers. Some of them, in which the process of reparation had not yet been completed, exhibited the following appearances:—Along the base and margin of these healing ulcers, there was distinctly visible a thin film of yellowish-white coagulable lymph, which seemed to be gradually proceeding to fill up the ulcerated cavity. In many instances it had not yet reached the level of the adjoining surface; in others, it had: in the latter the regeneration of the surface seemed complete, the lymph having become so intimately blended with the neighbouring membrane as to be scarcely distinguishable, except by the glistening and spangled appearance above mentioned. In the former the process of reparation seemed to be gradually advancing: in these, the neighbouring edge of the mucous membrane (which had probably been previously thickened and fringed,) appeared to be gradually subsiding, contracting and bevelling itself down so as to favour the progress of the cicatrization. Where the breach of surface had been completely repaired, there was no increased vascularity; and only a very faint appearance of it in the ulcers undergoing the healing process; the degree of redness seeming to vary according to the exigencies of each individual ulcer, being more or less in proportion as more or less lymph was required for the filling-up of the ulcer, and gradually becoming evanescent, as the continuity of the surface was re-established.

The healing of these ulcers appeared to me to be effected, not, as in external ulcers, by any visible growth of granulations, but by a process analogous to that which is displayed in the reparation of ulcers of the cornea by the deposition of lymph.

In the healing of follicular ulcers, (though, to the eye of the observer, there may be an apparent regeneration of the mucous membrane, completely obliterating the former breach of surface,) still, though the continuity of the membrane is

re-established, yet the parts so healed over must remain permanently unprovided with mucous follicles; for, previously to the commencement of the healing part of the process, it seems to be essentially necessary that the ulcerating follicles should have sloughed off.

This restorative power, too, seems to be limited merely to the re-establishment of the continuity of the exhalant surface, and does not extend to the regeneration either of the follicles, as just stated, or of any the smallest portion of the *valvula conniventes*, which may have been eroded. I have had opportunities of distinctly tracing such ulcers, which have apparently been undergoing the healing process, merely by the contraction of their margins and the effusion of lymph, without any attempt at the reproduction of the eroded part of the *valvula connivens*.

In most of the cases of follicular ulcers of the intestines in idiopathic fever, the seat of the ulcers will be indicated, upon opening the cavity of the abdomen, by some deviation from the natural transparency of the peritoneum, either by small opaque patches of silvery whiteness, or by apparently attenuated spots, occurring in discoloured portions of the intestines. In one case, (vide Elizabeth Lawson,) the peritoneum retained its natural transparency so perfectly as to allow me to distinguish most accurately the seat and extent of the different follicular ulcers, before the cavity of the intestines was opened. But it not unfrequently happens that there are no peculiar appearances of the peritoneum, to indicate the existence of these follicular ulcers; and hence they have frequently been overlooked.

To those who have not the opportunity of testing the accuracy of these statements, by frequent inspection of the intestines in fatal cases of idiopathic fever, and still are desirous of becoming acquainted with the manner and progress of the follicular ulceration above described, it may perhaps be satisfactory to learn that, frequently after death produced by phthisis tubercularis, attended with colliquative diarrhoea, a similar, though slower, process of disorganisation may be detected, first attacking the mucous glands, more particularly those of the ileum; and then eroding the muscular, and sometimes, though very rarely, even the peritoneal coat.

That a greater resistance is made by the peritoneal than by the other coats, to the progress of this ulcerative action, is rendered evident in fatal cases of phthisis tubercularis, attended with follicular ulcerations of the intestines; for the ulcers are often numerous, and may be seen in various stages

of their progress,—many of them penetrating through the mucous and muscular coats, so as to expose the interior of the peritoneal coat for the extent sometimes of an inch in diameter, without however perforating it.

Besides this mode of follicular ulceration, there are two other morbid appearances, which I have occasionally detected in the mucous membrane of the intestines of those who have died with protracted fever, at a period when abdominal derangement had entirely subsided, or was not remarked as a prominent feature of the disease.

One of these morbid appearances may be described as consisting of light buff-coloured patches of various forms and sizes, without elevated borders, but with a well-defined outline, marked by the sudden difference of colour between them and the adjoining surface. The enclosed area is traversed by numerous thin seams, or septa, forming by their interlacement minute cellules, the base of which appears to be either the denuded peritoneum, or a thin nearly-transparent film of lymph deposited upon that membrane. The delineation by words of such alterations of structure must always be imperfect, but perhaps the imagination of the reader may be enabled to picture to itself the appearance meant to be described, if it be stated that it may be not inaptly compared to the texture of the wing of a dragon-fly, or the skeleton of a decayed leaf.

The other morbid appearance above alluded to, so nearly resembles the one just described, that the only mark of difference consists in the slight elevation of the borders and septa by the deposition of lymph: consequently, the coats of the intestine at these spots, instead of being, as in the former case, attenuated, are slightly thickened; and the seat of the altered structure may be recognised, before the cavity of the intestine is opened, by the silvery opacity of the peritoneum, which, however, while passing over it, exhibits no irregularity; whether of puckering inwards or projection outwards; but retains its uniformly level and smooth surface.

These two appearances seem to me to display the progressive stages of the healing process, after the separation of the follicles, to the ultimate regeneration of the membranous surface.

In the progress towards follicular ulceration, though a cluster of these glands may have become simultaneously enlarged, and have thus, by their pressure upwards, caused erosion of their investing membrane, still the latter is not always wholly eroded, but only partially around each follicle; to the extent of allowing the separation of the follicle through

the perforation, while the still surviving filaments of the membrane form the septa enclosing the cellules left after the escape of the follioles. It is from these septa, as well as from the base of each cellule, that lymph is effused, to repair the breach of surface. This deposition at first produces a slight elevation and opacity about the septa and margins of the ulcers, but it is gradually converted into the nature of the neighbouring membrane, assuming at the same time the same level and the same degree of transparency.

Besides these follicular ulcerations, I have occasionally observed the ecchymosed spots and ulcers, so admirably described by Dr. P. Latham; and recently, since writing the above observation, I have read, in the Number of the *Medico-Chirurgical Review* of July, 1826, some extracts from a paper by Dr. BRETONNEAU, of Tours, entitled *Dothinent-ritis*. I am very happy to add my evidence in favour of the general accuracy of his description of these alterations of structure, though I readily confess myself unable to depict, as he has attempted to do, the daily changes in the appearance of these follicular ulcers of the intestines, with a precision equalling that with which the daily progress of variolous pustules may be delineated.

In conclusion, I beg to observe, that the above remarks are directed exclusively to the elucidation of the pathology of the follicular ulceration of the mucous membrane of the intestines in idiopathic fever: in their origin and progress they are as different, as in their termination, from that superficial abrasion, which has gained the distinctive appellation of *abrasive ulceration* of the mucous membrane of the intestines.

I suspect, however, that these follicular ulcerations in the intestines are of much more frequent occurrence than is generally imagined. During the *sectio cadaveris* of a young girl, who died at St. George's Hospital, in August 1825, four or five days after a very extensive burn, I found numerous follicles, enlarged and protruding the mucous membrane, all along the course of the ilium and colon, some of them just passing into a state of ulceration at their most prominent part. These appearances not only remain still vividly impressed upon my recollection, but are recorded in my notes, written immediately after the dissection.

In the next Number, an attempt will be made to ascertain the period of idiopathic fever, at which this follicular ulceration of the intestines usually appears; and a plan of treatment will be proposed, founded upon the above pathological views, and illustrated by the successful termination of cases,

notwithstanding the occurrence of symptoms indicating, or supposed to indicate, the existence of these follicular ulcerations.

At present, I would only beg permission to state, that these pathological views afford an additional and powerful argument for active and persevering purgation by effective doses of calomel, combined with any of the usual auxiliary purgatives, in the early stage of fever. Its power of preventing follicular ulceration, seems readily explicable on the following principles:—The preceding investigations appear to have established that the first step towards follicular ulceration is obstruction of the orifice of the gland by its own morbidly-inspissated secretion; the next step being distention, from the continuance and accumulation within it of this secretion, and subsequently ulceration. If, then, at this period effective purgatives be employed, they will clear out the obstructed orifices, and thus anticipate the distention and subsequent ulceration of the follicles.

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#### RHEUMATISM.

*Cases of Rheumatism, (continued from page 12.) Treated at St. GEORGE'S HOSPITAL, by Dr. CHAMBERS.*

IN our last Number, we gave some cases of diffuse rheumatism, for the purpose of illustrating a method of treatment which appears to be very efficacious in that form of disease. We subjoin examples of rheumatism affecting the synovial membranes, in which it will be seen that very different remedies were employed. Our motive for introducing these cases has been with a view of showing the broad line of distinction drawn at St. George's Hospital between the different forms of rheumatism, as regards the treatment. In one of the cases, (that of Hailstead,) it will be perceived that the two varieties ran into each other, requiring a corresponding modification of the remedies.

Two cases of metastasis are also given: one of *diffuse* rheumatism to the *heart*; the other of *bursal* rheumatism to the *brain*. These peculiarities in the part attacked by metastasis, we believe to be in conformity with observations made by Dr. Chambers, on an extensive scale. We hope, however, on a future occasion, to be able to make our readers more particularly acquainted with this gentleman's pathological views.



III. *Case of Bursal Rheumatism, affecting the hand and knees.*

Susan Church, ætat. seventeen; single. June 14th, 1826.—Complains of pain and swelling occupying the extensor tendons of both hands, particularly the left. There is effusion into the sheaths of the tendons, and some of the joints of the fingers. Pulse 100; skin cool; tongue slightly furred; bowels natural; urine thick; catamenia regular. Ill nine months, with occasional swellings of synovial membranes, the urine being always thick at the time of the attacks.

Hauft. Piment. c. Vini Colchici, m. xx. sextis horis.

Diæta parca.

16th.—Knees much distended; hands better.

Hirudines x. genu sinistro. Lotio spirituosâ articulis affectis.

Repetantur alia.

26th.—The medicines have been continued, and the leeches applied to the left knee on the 17th, 18th, 21st, and 23d. Knee much better. Leech-bites ulcerated.

Repetantur Lotio et Haust.

From this time she gradually recovered, and was discharged cured on the 3d of July.

IV. *Case of Bursal Rheumatism, in which many joints became successively affected.*

May 17th, 1826.—Thomas Faulkner, ætat. twenty; a porter. Complains of pain and swelling of the knees, ankles, and right shoulder. These joints are much distended with an increased effusion of synovia: they are very stiff, and somewhat tender on being pressed. Pulse ninety, soft; skin quite cool; tongue furred; bowels open; urine high coloured, depositing occasionally a late-ritious sediment, which he observed particularly just before this attack. The present symptoms are of five days' standing.

Calomel, gr. v. hac et crastinâ nocte.

Hauft. Sennæ c. Vini Colchici, ʒss. omni manè.

Hirudines xij. genu dextro, et x. sinistro. Lotio spirituosâ.

Diæta sit parcissima.

22d.—Knees much better. Right shoulder-joint more distended; the deltoid evidently much elevated by the subjacent fluid. Pulse natural; skin cool; tongue white; bowels open.

Hirudines xij. humero dextro. Repetantur alia.

24th.—Shoulder relieved. The extensor tendons of the fingers enlarged, evidently by the effusion of fluid into their sheaths. Pulse eighty, soft; skin rather warm; tongue white in the centre, with red edges; bowels open; urine clear.

Mist. Camph. ʒ iss.; Vini Colch. ʒss.; Magnes. Carb. ʒss. ter die.

Repetatur Lotio spirituosâ.

26th.—Right shoulder stiff. No fever.

Empl. Canth. humero dextro. Repetantur alia.

29th.—Left shoulder painful.

Empl. Canth. humero sinistro. Repetantur alia.

June 2d.—Left wrist painful, swelled, distended, and very hot; the rest of the body cool. Pulse natural; tongue whitish.

Hirudines x. carpo dolenti.—Postea Lotio spirituosæ.

Aquæ Piment.  $\frac{3}{4}$  iss.; Vini Coleh. m. xv.; Magnes. Sulph.  $\frac{3}{4}$ i.; Magnes.

Carbon.  $\frac{3}{4}$ ss. M. sumatur ter die.

Diæta sit lactea.

5th.—The left wrist free from pain: the right wrist attacked by the disease. Fluctuation perceptible in the synovial membrane. Pulse seventy-six, full; skin warm; tongue cleaner, but still furred; bowels open; urine free, clear.

V.S. ad  $\frac{3}{4}$ xij. Hirudines x. carpo dextro. Lotio spirituosæ.

Repetantur medicamenta.

7th.—Blood buffy. Right knee has become affected. Pulse eighty, full; tongue furred; bowels open.

V.S. ad  $\frac{3}{4}$ xij. Hirudines x. genu dextro cras manè.

Haust. Sennæ alterno mane, c. Vini Colchici,  $\frac{3}{4}$ ss.—Repetantur alia.

8th.—Much relieved. Pulse soft; skin cool.

Repet.

12th.—Joint of right thumb swelled and painful. In other respects easy.

Hirudines ij. pollicis dolenti. Repet. med.

From this time he gradually improved, but was very weak, with some œdema of the ankles. He was discharged, cured, on the 26th.

*V. Case in which the rheumatic affection assumed the bursal and diffuse forms alternately.*

January 8th, 1826.—James Hailstead, ætat. twenty-five; foot-man. Complains of pain in all the joints, which are distended with fluid. Pains worse at night, although on the whole he is better when warm. Pulse eighty, soft; skin cool; tongue furred; bowels open. Ill six weeks with present symptoms. Attributes the attack to exposure to cold.

Pulv. Ipecac. comp.  $\frac{3}{4}$ ss. omni nocte.

Haust. Salin. c. Vini Colchici,  $\frac{3}{4}$ ss. et Magnes. Carbon.  $\frac{3}{4}$ ss. ter die.

16th.—Colchicum increased on the 9th to m. xl. in each draught. Pains not relieved. Pulse rather full, soft; bowels open; tongue white.

V.S. ad  $\frac{3}{4}$ xij. Repet. med.

18th.—Swelling of the hands and fore-arms more diffused. Pulse 120, sharp; skin hot, with occasional rancid perspirations; bowels open; tongue white; urine high coloured; blood buffy.

Calomel, gr. viij.; Opii, gr. iij. hac et crastina nocte.

Haust. Sennæ cras.

20th.—Still much pain in wrist and knees.

Rep. Calomel c. Opio omni nocte, et Haust. Sennæ alterno mane.

23d.—Pain, stiffness, and swelling better. Some sickness at stomach.

Rep. Calomel et Opium crastinâ nocte. Haust. Salin. Efferves. sextis horis.

26th.—Hands much better; severe pain in left knee; no swelling. Pulse 100, soft; tongue nearly natural; bowels open; skin warm.

Rep. Calomel et Opium hac et crastinâ nocte. Rep. Haust. Salin.

30th.—Medicines have been continued. Pains much better. Mouth sore.

Sumat Opium sine Calomel. Haust. Sennæ omni manè.

Rep. Haust. Salin. Habeat Gargarisma Aluminis.

Suffitus Aquæ calidæ partibus dolentibus.

February 8th.—Better. Sweats profusely at night.

Extract. Lactuc. gr. x. omni nocte loco Opii. Repetantur alia.

13th.—Some dysuria. Joints rather more painful, particularly the left wrist. Pulse eighty, soft; tongue white; bowels regular.

Haust. Salin. c. Vini Colchici, m. x. et Magnes. Carb. ʒss. sextis horis.

Emplast. Lyttæ carpo sinistro.

The other joints to be steamed as before.

15th.—Knuckle of the right forefinger is highly inflamed and distended. Dysuria.

Repet.

20th.—Ten grains of carbonate of soda added to the draught on the 17th. Knuckle of the right forefinger still inflamed and painful.

Hirudines ij. parti manûs dolenti. Repetantur alia.

23d.—One of the joints of the right ring-finger swelled and inflamed; knee and elbow also painful. Pulse soft; skin warm; tongue clean; bowels open; urine natural.

Decoct. Sarsaparillæ C. ʒ ij. c. Sodæ Carbonatis, gr. xv. sextis horis.

Hirudines ij. articulo digiti tumido.

Joints to be steamed as before.

March 1st.—Joint of finger again become painful.

Hirudines ij. digito.

3d.—Right shoulder painful.

Emplastrum Lyttæ humero.

Continued convalescent till April 10th, when he was sufficiently recovered to leave the hospital.

#### VI. *Case of Diffuse Rheumatism, with metastasis to the heart.*

October 5th, 1825.—Charlotte Yates, ætat. twenty; single; Pimlico. Rheumatic swelling, of a diffused character, of the right hand and wrist, and about the right knee: relieved by warmth. Pulse 110, soft; skin warm; bowels open from medicines; tongue white, furred. Ill seventeen days. First attacked with pain in

the chest, which shifted suddenly to the present seat of the disease. Has taken, for the last two days, the following medicines :

Calomel, gr. viij. ; Opii, gr. ij. omni nocte. Haust. Sennæ, omni mane.

10th.—No better.

Calomel, ℥ss. ; Opii, gr. ij. bis die. Haust. Sennæ, omni mane.

12th.—Rheumatic swelling very severe on the left wrist; pulsation of carotids evidently increased. Pain and tenderness in the region of the heart. Pulse 120, small; tongue white; bowels open. Sleeps constantly.

V.S. ad 3xij. et repetatur post horas quatuor nisi prius cessaverit palpitatio.

Calomel, gr. ij. ; Pulv. Antim. gr. iij. ; Pulv. Digital. gr. i. sextis horis.

Superbibendo Haust. Salin. c. Liq. Opii Sedativi, m. xx.

14th.—Blood slightly buffy. Chest relieved; pains and swellings subsided. Pulse soft, 100; tongue clean, moist; mouth not sore.

Repetantur medicamenta.

17th.—Under the influence of digitalis. No pain or palpitation.

Mist. Camph. ʒiiss. ; Spirit. Ammon. Aromat. ʒss. M. fiat haust. sextis horis sumendus.

From this time she gradually recovered, having taken Cinchona, and had an opium plaster applied to the chest. She was discharged, cured, November 17th.

#### VII. Case of Bursal Rheumatism, with metastasis to the head.

January 9th, 1826.—Thomas —, (the surgery man at St. George's Hospital.) The ankles and knee-joints are inflamed, and distended with fluid. Pulse 120, soft; skin hot, perspiring; bowels open; tongue white; urine high coloured and scanty. Attacked five days ago with present symptoms.

V.S. ad 3xij.

Pulv. Ipecac. oomp. ℥ss. omni nocte.

Haust. Salin. c. Vini Colchici, ʒss. ; Magn. Carbon. ʒss. sextis horis.

Haustus Sennæ, cras mane.

Dieta Lactea.

10th.—Delirious, and complaining of pain in the head. Says he has no pain in the limbs.

V.S. ad 3xij. Hirudines x. temporibus.

Vespere applicetur Emplastrum Lyttæ nuchæ.

Haustus Sennæ cras mane.

11th.—Is no longer delirious, but complains of severe pain in the head, with intolerance of light, and increased fever. Pain and swelling of joints entirely gone. Pulse full and frequent; tongue furred; skin warm; blood highly inflamed.

V.S. ad 3xij. Lotio frigida capiti, et repet. V.S. post horas octo nisi prius cesset dolor capitis.—Repetantur alia.

13th.—Head quite relieved, (second bleeding not required on the 11th.) Blood still inflamed. No pain of limbs. Pulse natural; tongue clean; bowels open; urine natural.

Repetantur medicamenta.

16th.—Is now up, and has no complaint.

Decoct. Sarsapar. comp. ʒi. quotidie.

Pulv. Ipecac. comp. ʒss. omni nocte. Haust. Sennæ, alternis diebus mane.

23d.—Pain and swelling of joints has returned.

Resumatur Haustus Colchici, &c.

25th.—Pain now occupies the sacrum and inner part of the thigh. Joints better. Pulse 100, soft, full; skin warm, moist; tongue white; bowels very open.

V.S. ad ʒxij.

Haustus Salin. c. Vini Colchici, ʒss. sextis horis.

Pulv. Ipecac. comp. ʒss. omni nocte.—Diætâ febrilis.

27th.—No remains of pain, except in the integuments of the chest. Pulse 120, very soft; skin cool and moist; urine natural.

Emplastrum Lyttæ pectori.—Repetantur medicamenta.

From this time he had no complaint but weakness. He took the Sulphate of Quina for some days, and was discharged, cured, on the 13th of February.

#### DISEASE OF THE HEART.

*Two Cases of Disease of the Heart.* Treated at the MIDDLESEX HOSPITAL, by Dr. MACMICHAEL.

I. *Case in which Tubercles were found in the Pericardium and Cavities of the Heart, as well as in the Lungs.*

J. BURROWS, aged thirty-five; admitted April 4th, died June 2d, 1826. This man, during life, laboured under symptoms indicative of disease on the right side of the heart. He was originally admitted into the hospital for colica pictonum, and, upon the subsidence of this affection, the following symptoms claimed the attention of his physician.

The upper half of the body became œdematous; the countenance was livid, and occasionally of a purple colour; the breathing was unnatural, and at times even difficult; the pulse did not deviate much from health. There was considerable anxiety depicted in the countenance,—that peculiar expression so characteristic of disease of the heart, or large vessels connected with it. In short, there was evidently an obstruction offered to the free transmission of the venous blood on the right side of the heart, causing an accumulation in that part, and turgescence in the large venous trunks. The serous infiltration into the cellular membrane, producing œdema of the upper part of the body, appeared to be the effect of this obstruction to the venous circulation.

He continued in this state for several weeks. The little sleep he had was disturbed: medicines appeared to have but little effect, even as palliatives; the symptoms became more severe; the lividness of the surface, and the œdema, increased; and he at length sunk, exhausted and worn out by the long continuance of his disease.

The preceding brief sketch will serve to connect the symptoms with the morbid appearances.

*Dissection.*—*Thorax*: The lungs were completely disorganised: the parenchymatous structure was thickly studded with white tubercles, in different stages of development. Here and there this process appeared to be so far advanced as to have removed the tubercles themselves; the cysts which they had occupied now containing pus of a scrofulous character, and forming abscesses of different dimensions. Other parts of the lungs were found to contain a ligamentous structure, which was cut through with some difficulty. So numerous were these different morbid changes throughout the substance of the lungs, so dense was their structure, and so universally adherent were they to the surrounding parts, as to cause great difficulty in removing them from the chest.

The pericardium contained tubercles, apparently of the same structure: these were situated around the base of the heart. At the angle formed by the reflection of the pericardium over the surface of the heart, they were covered by the delicate serous membrane. On opening the heart and large vessels, this morbid growth was found to encroach even upon their cavities. A large tubercle, situated at the union of the two cavæ, and others surrounding the inferior cava, just after its passage through the diaphragm, had so straightened these vessels, that it was with difficulty that the little finger could be made to pass the obstruction. A similar morbid growth was observed in the right auricle, forming a considerable projection: this occupied the septum auriculorum, and thus implicated also the left auricle.

This dissection satisfactorily accounts for the symptoms of venous congestion on the right side of the heart; and it is not at all improbable that death was caused by the long-continued circulation of imperfectly arterialised blood: indeed, it is only astonishing how life could have been so long supported with such a diseased state of lungs. It is worthy of remark, that this patient never had cough, expectoration, or any other symptom of phthisis.

Although Boerhaave is supposed to have described tubercles of the serous membranes, and Bichat, with De Haen and others, have given more accurate descriptions of this disease, still (with the exception of the latter author,) Dr. Baillie appears first to have noticed tubercles of the pericardium. He states that they are of very rare occurrence, and that he has only met with one instance of their formation in that membrane. Dr. Baron, in his work on Tubercles of the Serous Membranes, has not treated of this disease in the pericardium.

The above case was at first supposed to be an example of

the disease described by Dr. Baillie; but, on making a more accurate examination, it evidently appeared to be merely a propagation of the tubercles from the lungs; for it was singular that not one of these formations was in an insulated state, but they were found to be invariably connected with tubercles arising from the lungs. Some of them appeared to be the bronchial lymphatic glands in a diseased state. There was no inflammation of the heart or pericardium. Proofs, however, of the independence of tubercles on inflammation for their production, have now ceased to be necessary. If a doubt on this subject does still remain, we have here an instance of these formations in the heart itself, still without any symptoms of inflammation during life, or marks of the existence of such a state exhibited after death.

*Case of Enlargement of the Heart, (the presence of which was not manifested by the symptoms,) and of Acute Hepatitis.*

April 7th, 1826.—James Fisher, aged thirty-six, was admitted, on the 5th, with slight rheumatic symptoms: indeed, so slight were they as to lead to some doubt of the necessity of his becoming an *in-patient*. The bowels were opened, and some camphor mixture, with colchicum, given every six hours. Next day, his rheumatism was better, but some yellowness of the skin was observed. The tongue was clean, and the pulse natural. During the night of the 6th, the apothecary was suddenly called to him: he found him complaining of pain at the scrobiculus cordis and right hypochondriac region, which was increased on pressure; his breathing was oppressed. These symptoms continued to increase, and within four hours had acquired great intensity. The pain was very severe, and much aggravated by pressure; the respiration was difficult, with pain behind the right scapula; in short, the patient evidently laboured under an attack of acute hepatitis. Twenty-four ounces of blood were taken from the arm, from which he experienced great relief, and soon after fell asleep. The blood drawn was cupped, and its surface covered with a buffy coat of a yellow colour.

About ten o'clock this morning, he died suddenly, having been seen about a quarter of an hour before, at which time he appeared to be much better, and expressed himself to that effect.

*Dissection.*—The skin of the whole body was of a deep yellow colour.—*Abdomen*: The liver was much enlarged, and of a purple colour. On making a cut into its substance, it exhibited a granulated and firm texture, arising from interstitial deposition. The vessels appeared to be gorged with blood; the peritoneal covering was perfectly natural. The viscus had evidently been some time diseased, but appeared to have recently taken on general inflammatory action.

*Thorax*: The heart was of unusual size, and weighed two and  
No. 330.—*New Series, No. 2.* R

a half pounds: a great increase, when it is remembered that the human heart, in a state of health, weighs only a few ounces.\* The coronary arteries were thicker in their coats than natural, but there were no traces of ossification. The enlargement of the heart in this case presented some peculiarities. The right auricle and ventricle were much dilated, and the communication between these two cavities had suffered with the general enlargement, so much that the valves, in consequence, must have been incapable of duly performing their office. The walls of this ventricle were softened; the muscular parietes were pale and degenerated: in short, the right auricle and ventricle were as one large and flabby pouch, stuffed with a dark coagulum, and their structure corresponded to the softening of the heart described by Portal. The left cavities presented a striking contrast with the above description: the muscular walls of the left ventricle were thicker and more vascular than natural, forming hypertrophy of the left ventricle;† the aortic valves were slightly diseased; but any mechanical obstruction which could have been offered by them was too trifling, and altogether inadequate to the production of this morbidly increased growth of the ventricle.

The lungs were found to be universally adherent to the pleura lining the ribs, and had suffered from a considerable effusion of serum into their substance.

It is remarkable that such extensive disease of the heart should have existed without the occurrence of any symptoms during life indicating its presence. This circumstance countenances the opinion of the late Mr. Burns, who states that symptoms of diseased heart seldom occur, unless inflammation supervenes, or the enlargement be of an active character.

#### SLOUGHING ULCERATION.

*Two Cases of Sloughing Ulceration.* Treated at ST. THOMAS'S HOSPITAL, by Mr. TRAVERS.

##### I. *Case of Sloughing Ulceration, in which the application of undiluted Nitric Acid was attended with success.*

SEPTEMBER 30th, 1824.—Anne Skinner, aged seventeen, of delicate appearance, sallow complexion, light eyes and hair; stated that she had been on the town three months, and had resided in Swan-alley, St. Catherine's. While following this course of life, she was in the habit of indulging in the free use of spirits. She

\* Lieutaud has described a heart which weighed five pounds.

† When thickening of the parietes of the heart arises from mechanical obstruction to the circulation, it forms (according to some continental writers) a disease different from that which is termed hypertrophy. M. Bertin has shown that hypertrophy may occur in the contracted, natural, and dilated states of the cavities of the heart.



was admitted with a small irregular sloughy ulcer on each side of the perineum, which she said had existed for three weeks; during which time she had taken no medicine, although her health had suffered considerably.

R. Mist. Camph. ʒ xj.; Sp. Æther. Nitr. ʒ j. M. ter die sumend.

Pulv. Opii, gr. j. nocte et mane.—Apply to the sores, Epithem. Opiat.

October 11th.—Under the above plan of treatment, the sores speedily assumed a healthy aspect. The ulcers are now clean, but the granulations indolent.

Dec. Cinchonæ, ʒ x.; Tr. Ejusd. ʒ j.; Ext. Ejusd. ʒ ss. ter die.

Vini Rubri, ʒ iv. in dies. Continue Epith. Opiat.

19th.—Sloughing process again commenced on the 15th, and has rapidly extended. The slough occupies the whole perineum, extending to the nates on the right side, from the tuber ischii to the level of the centre of the labia, which are much swollen and inflamed. On the left side the slough is similar to the other, but only half the size. The sloughs are of a black colour, and discharge a thin fetid ichor: their circumference is very tumid and inflamed, and the edges are white, everted, and irregular. She lies constantly moaning from severe burning pain, which deprives her of rest. The whole surface of the body and extremities is covered with a scaly copper-coloured eruption, which is accompanied with troublesome itching. Countenance anxious; pulse 120, firm and full; tongue furred, white, and moist; great thirst; bowels confined.

V.S. ad ʒ xij.—Mist. Camph. ʒ jss. c. Sp. Æther. Nitr. ʒ j. ter die.

Pulv. Opii, gr. j. quater in die.—Vin. Rubri, ʒ vj. quotidie. Ol. Ricini, p. r. n.

Fom. Papav. c. Cataplasma Cerevis., under which the Epithem. Opiat. is to be applied on lint.

20th.—Slept some hours, and continues drowsy. Complains more of pain. Pulse 120, quick, small, and hard; bowels confined; less inflammation at the edges of the slough, which has not spread.

Catap. Theriac. Lond.

21st.—Slept tolerably well; bowels opened last night, and again this morning; pulse 125, fuller and stronger; tongue less furred; appetite bad. The slough has spread a little on the right side; a small portion, at the verge of the anus, is inflamed and vesicated. Pain rather less acute.

22d.—Half the vesicated portion has sloughed. Increased inflammation of the labia, the external edges beginning to slough. Appetite improved. In other respects as before.

Mutton chop daily.—Repetantur medicamenta, &c.

23d.—Labia sloughing more rapidly. The slough has separated from the perineum and the left side of the nates, leaving the surface covered by a viscid tenacious pus; edges swollen and everted, not acutely inflamed. The undiluted Nitric Acid has

been freely applied over the whole wound with a pencil-brush, working to the bottom of the slough, which was very dense and resisting. Two grains of opium were administered immediately. In twenty minutes she was free from pain.

24th.—Slept several hours. Swelling so much diminished that the wound appears one-third less: the edges are pale and inverted. Inflammation of labia subsided; still feels smarting pain. Little or no variation in pulse, tongue, or general symptoms.

Six P.M.—Nitric acid again applied, and opium repeated. Was "quite easy" in ten minutes.

27th.—The slough has separated from the left side.

November 2d.—The slough is now completely thrown off, leaving a florid granulating surface, which suppurates copiously. At the back part of the right thigh, the wound is an inch in depth, exposing the muscles for three inches, and becoming gradually more shallow: it extends two inches higher on the nates. On the left side, the wound occupies a circle two inches in diameter, connected with that on the opposite side by the perineum, the whole of which is involved. The external half of each labium is also destroyed. She has smarting pain in the wound, more severe when it is uncovered. The countenance has lost its anxious expression, and the complexion is clearer. Appetite better; pulse 100, moderately strong and full; tongue clean and moist; some thirst; bowels regular; sleeps well.

Repetantur medicamenta. Discontinue treacle poultice, and apply black wash and linseed poultice.

19th.—Sore, which was healing rapidly, again become indolent.

Applic. Ung. Terebinth.—Cerev. ℥j, in die.

22d.—The wound has been gradually healing, but her appetite is bad. She was removed to a clean ward on the 10th.

R. Infusi Rosæ, Infusi Cascar. aa 3 v.; Acid. Sulph. dil. m. x.; Tr. Cinch. C. 3 j. M. ter die sumend.—Meat daily.

February 8th.—The improvement, though progressive, has been slow. From her confined position in the bed, her knees have become contracted.

Hydr. c. Creta, gr. iv.; Hydr. Submur. gr. j. omni nocte.

Under the above plan she continued to improve, and by March 8th the sore was quite healed; but, on account of the contraction of the knees, she continued in the hospital till the 20th, at which time the free motion of the joints was not entirely restored. She has since enjoyed good health, and has got married.

## II. Case of Phagedenic Ulcer of the Genitals, in a Male.

September 1st, 1825.—John Hamilton, ætat. eighteen, of fair complexion, light eyes and hair, and sickly appearance; by trade, apprentice to a joiner; accustomed to regular habits, and, according to his own account, having all his life enjoyed good health, up

to the period of his present illness. Was admitted yesterday with "inflamed phymosis, and a sloughy sore surrounding the extremity of the prepuce." He immediately took a dose of Mist. Sennæ C., and had a poultice applied to the parts, which he was directed to keep supported against the abdomen.

3d.—States that, about three months since, (after connexion with a female in Swan-alley,) he had scalding and a slight discharge from the urethra; followed, in a few days, by two or three small sores on the inside of the prepuce, which had been in a state of phymosis ten days, but had begun to swell and become painful three days only prior to his admission. On examination this morning, the prepuce and integuments of the penis were found very acutely inflamed, with considerable swelling, vivid redness, acute pain, and intense heat; accompanied by great constitutional irritation, marked by a white furred tongue, with thirst, pain of head, heat of skin, irregular bowels, and quick hard pulse. At the orifice of the prepuce was a foul sloughy sore, completely surrounding it, discharging a glairy secretion.

Twelve leeches to be applied to the inflamed part, and afterwards Foment. Papav. c. Cataplasma.

R. Liq. Antimon. Tartar. ʒjss.; Magnesiæ Sulph. ʒiij.; Liq. Ammoniacet., Aquæ Menth. āā ʒijj. M. cap. coch. iij. mag. sextis horis.

Pil. Antim. Opiat. o. n. To keep his bed.

6th.—Slough beginning to extend, with increased pain of the sores; integuments thickened and hardened, with dark red inflammation. Tongue covered with thick white slimy fur; pulse 90—100, full and strong. Is very anxious.

7th.—Slough extending.

V.S. ad ʒ xij.—Mist. Camph. ʒjss. c. Sp. Ætheris Sulph. ʒj. ter die. Pulv. Opii, gr. j. nocte maneque.—Catap. Theriac. Omitt. alia.

11th.—Pulse became much smaller and softer after the bleeding (on the 7th), and he expressed himself relieved: syncope was not induced. The sore remained stationary for two or three days; after which the slough again extended, and the pain increased.

Hirudines xij. pubis. Cap. Pulv. Opii, gr. j. ter quotidie.—Repet. alia.

From this time to the 16th, he rapidly improved. The slough separated, by which the glans was partially exposed. On the 14th he was found standing at the window, contrary to express order.

17th.—Considerable effusion into the integuments of the penis, with great induration, and dark red inflammation, made their appearance yesterday, attended with exquisite pain and extreme anxiety. The Acid. Nit. Fort. has been applied to-day. The pain produced by it was very severe, but lasted only twenty minutes; after which he became quite easy, and slept well for some hours.

18th.—Expresses much relief. The tumefaction has subsided, and the induration of the surrounding parts has abated. The subsidence of the swelling has exposed a foul sore at the frænum, situated on the glans; at which part only does he feel pain.

20th.—The slough has separated completely, leaving a healthy granulating surface. At the frænum, the sore is slowly spreading to the glans and integuments of the penis, being accompanied with a proportional increase of pain. His health is now much improved: tongue clean; bowels open; appetite good; sleep sound; pulse 70—80, moderately full and soft.

From this time the slough gradually and uninterruptedly spread to the surrounding parts, till, on the 25th, the whole surface of the original sore was contaminated; the tumefaction, induration, and pain, returning to the same extent as before.

26th.—The whole prepuce has sloughed off, and also a considerable portion of the glans, particularly about the frænum, where the urethra has been laid open about a third of an inch below its orifice; the urine passing in two streams,—one from this opening, the other from the orifice. Tongue covered with a thin white fur; slight thirst; bowels irregular; no appetite.

28th.—The whole glans, except a small portion at the upper part, in a sloughy state; as are the integuments of the penis for a considerable way down. Pain and anxiety excessive, so that he cannot remain quiet an instant.

Apply the Acid. Nit. Fort., and afterwards the soft Extr. Opii, reduced to the consistence of cream.

R. Ammoniz Subcarb., Moschi, āā gr. v.; Aquæ Menth. ℥ j.; Pulv. Opii, gr. j. M. sextis horis sumend.—Omit the former medicines.

The acid was applied in the evening, giving extreme pain, which abated in half an hour. He passed a good night, and remained quiet during the following day.

From this time, up to the 26th of October, little variation in the symptoms occurred, so that it is unnecessary to continue the daily reports. The slough, caused by the acid, separated in two or three days, but, as it fell off, the sloughing process again attacked the healthy surface left exposed, and continued its ravages upon the penis; its progress not being in the slightest degree impeded by the local applications or the medicines. The treatment pursued, as copied from the hospital-books, was as follows:

8th.—Apply the Unguent. Terebinth., instead of the Linim. Opii.

12th.—Omit the former medicines and applications, and substitute the following: R. Sulph. Quinz., gr. iij.; Infusi Rosar. ℥ jss.; Tinct. Opii, m. x. sextis horis sumend.—Vini rubri, ℥ vj. quotidie.—Repet. Linim. Opii.—To be removed to a clean ward.

22d.—Omit the former medicines.—R. Liq. Ammoniz Acet. ℥ iij.; Misturæ Camph. ℥ j.; Spirit. Ætheris Nit. ℥ j.; Syrupi Papav. ℥ j. M. quartis horis sumend.—R. Unguent. Cetac. ℥ vj.; Cerat. Plumbi, ℥ iij.; Pulv. Opii, ℥ j. fiat unguentum.—Ulceri applicand.

24th.—Omit the Syrupi Papav.—Cap. Ext. Conii, gr. iij. o. n. et m.—Foment. Papav. Tepid.—Cont. alia.

October 26th.—Sloughing continues to extend: it has now destroyed about two-thirds of the penis. Pain greater last night

than it has been for some time past. Sleeps scarcely at all. Pulse 130, and weak; appetite bad; bowels open.

Sum. Pulv. Cinch. ʒj. secunda q. q. hora. Ext. Papav. gr. v. o. n.

Cont. Vini Rubri, ʒ vi. in die.

Argent. Nitr. ʒii.; Aquæ Distill. ʒj. fiat lotio ulceri applicanda. Over this let the saturnine and opium ointment, formerly ordered, be applied. Omittantur alia.

31st.—Slough extending, the whole penis being now destroyed.

R. Ext. Opii, ʒj.; Aquæ Bull. ʒvj. fiat lotio tepid.—Cont. alia.

November 2d.—Pain of the sore unabated, which destroys his sleep. Some bleeding took place from the sore last night. Slough extending. Appetite continues good; bowels open; pulse 120.

Omitt. Cinchona.

R. Hydr. c. Cretâ, gr. iv.; Pulv. Ipec. C. gr. iv. M. fiant pil. ij. sextis horis sumend.

5th.—Slough extending.

Omittantur medicamenta.

Extr. Sarsap. ʒiij.; Decoct. Ejusd. ʒij. 3m. part. ter die.

Pulv. Ipec. C. gr. x. o. n.

Omitt. Unguent. Applic. Linim. Ærug.

9th.—Sloughing still extending.—Apply the nitric acid.

11th.—The application of the nitric acid gave him considerable relief, after the immediate pain resulting from it had subsided. The slough has separated; but the sloughing process has begun again at the edges of the sore, accompanied with a return of pain. Appetite bad.

R. Ext. Cinchonæ, ʒss.; P. Opii, gr. j. quartis horis sum.

Ext. Papav. gr. vi. o. n.—Omitt. alia.

Applic. Cetac. Simplex; and over this a poultice of bread and water.

14th.—Slough has extended to the whole front of the scrotum; but the upper part of the sore is quite clean, and covered with healthy granulations. There is no pain when dressed. Slept well the two last nights. Appetite improving; tongue moist and whitish.

November 19th.—Complains of pain in his back. Pulse 136, very weak; bowels confined. The sore is much deeper, and continues to extend: both testes are exposed, and their surface sloughy; the left one being completely denuded, except at the posterior part. The upper part of the sore healthy, and cicatrising. A slip of healthy granulations extends down between the testes.

Capiat Ol. Ricini, ʒiv. statim.

21st.—Ulceration has again begun on the upper and left angle of the sore, where it was cicatrising. Since the testes have been exposed, he has complained much of the pain caused by their shaking, on the least motion of the body, and on this account expresses a great desire to have them removed.

30th.—The whole of both testes is denuded, except where their posterior part is in contact with the surface below, on which they rest.

Omitt. medicamenta.

R. Ammoniz Subcarb. gr. viij.; Infusi Cascaril. ʒ xj.; Tinct. Cinchonæ C. ʒj.; Tinct. Hyoscyami, ʒ ss. M sextis horis sumend.

Cont. Ext. Papav.

December 3d.—Sore extending. Rest impaired; appetite bad; pulse 130, small and weak.

Omitt. Ext. Papav.

Cap. Pil. Sapon. c. Opio, gr. v. o. n. Vini Rubri, ʒ viij. in die.

Unguent. Hyd. ʒj. brach. et cruribus infricetur mane et vespere.

7th.—Mercurial friction not begun till the 5th. No change of any kind, the mouth being not at all affected.

Infricetur Ung. Hydr. ʒj. ter die.

Capiat Pil. Sapon. c. Opio, quarta quaque hora.

Let the Ung. Hydr. be applied to the sore.

8th.—Within ten minutes after the application of the ointment to the sore, he experienced great relief of the pain. He feels better to-day: his sleep last night was better than it has been for some time past; appetite is returning; mouth not at all affected.

10th.—Mouth not affected; dozes much; sore same as last reported; pulse 120, stronger; tongue clean.

Cerevis, ʒj. quotidie. Repet. medicamenta, &c.

14th.—Sore rather larger and deeper. Yesterday he was first observed to cough: he has no pain in the chest, and the expectoration is very slight. Appetite worse. Has little rest, and what he does obtain consists rather of dozing than proper sleep. Mouth unaffected.

Omitt. Frictio Mercurialis.—Repetantur alia.

17th.—Sore increases: the urethra and corpora cavernosa projecting above the level of the rest of the sore, and sloughy.

19th.—Unable to pass his urine. On a catheter being introduced a short distance into the urethra, and again withdrawn, he was enabled to empty the bladder. Pulse 130, excessively small and weak; tongue clean; sore extending; emaciation and anxiety extreme.

28th.—Gradually sunk, and died this morning, there having been no change in the symptoms since the last report. His cries, during the last five days, except when he was under the influence of opium (of which he took one grain every two hours), were so distressing as to disturb the whole ward.

*Examination.*—The sloughing surface covered the whole of the lower part of the abdomen, the upper edge of it extending across from the anterior superior spinous process of the ileum on the left

side, to within one inch and a half of that on the right. There were also included within its limits the inner and fore part of each thigh, for about three inches downward. The surface presented an uniform level appearance, except where broken by the projection of the testes and corpora spongiosa and cavernosa of the penis. The testes were retained in their position solely by the spermatic cord; the remains of the penis projecting about two-thirds of an inch above the surrounding surface: both were sloughy, and, but for their prominence, could not have been distinguished from the rest of the sore.

The viscera of the abdomen, with the exception of the liver, which was a little larger than natural, were perfectly healthy. The glands within the abdomen and pelvis were not at all enlarged.—The head was not examined.

This case presents a melancholy instance of phagedenic ulceration, running on for many weeks, and resisting the various remedies, whether general or local, which were administered. It appeared from his own testimony, that this unfortunate lad had connexion once, and once only, with a female in Swan-alley. We understand that there are various houses of ill-fame in that vicinity, supplied with girls who are kidnapped about London-bridge, and other great avenues to the town, and who are afterwards liberally provided with spirits by their employers. These houses are frequented by foreign sailors; and it is probable that the very severe forms of sloughing ulcer, which have for some time attracted so much attention at St. Thomas's and other Hospitals in the City, are produced by the infection communicated by them to girls, most of whom are very young, and whose constitutions are impaired by mental depression and habitual intemperance.

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*Two Cases of Sloughing Ulceration, in which Nitric Acid was the principal local application. Treated at St. THOMAS'S HOSPITAL, by MR. GREEN.*

*I. Case of Sloughing Ulceration of the Labium and Nates, which terminated favourably.*

June 3d, 1824.—Mary Ann Welch, ætatis eighteen, of delicate constitution, though her health is said to have been good; has been in the habit of drinking spirits. About six weeks ago, she had a severe attack of gonorrhœa: the discharge at first was of a greenish yellow colour, and thick, but exceedingly irritating, with micturition and scalding. An ulcer followed on the left labium. She had no medical aid, but kept her bowels regular, which gave her great relief. The ulceration of the labium commenced about a fortnight after the appearance of the discharge: it has never given her any pain. She has a sore upon the left nates, which first ap-

peared spontaneously about two years since, whilst she was labouring under a discharge: it was then cured by the application of black wash, and rubbing-in Unguentum Hydrargyri to ptyalism. She says that this sore reappeared seven weeks ago. It now presents a cupped, dark, and mottled appearance, with a hard deep-red base, and is of the circumference of a teacup. The discharge from it is dark and bloody, having an offensive smell.

June 15th.—Simple remedies having been used without success, the strong nitric acid was applied to the sore yesterday, by means of a circular piece of lint dipped in it. It occasioned considerable pain, but she bore it well; and an opiate was given, which produced sleep, after which great relief was experienced.

18th.—Scarcely any discharge from labium, which is dressed with dry lint. Cat. Lini applied to sore on nates, and nitric acid wash, occasionally. Health greatly improved.

21st.—Pulse eighty-six, small; tongue white; bowels open. Sore has lost its dark appearance, and now looks very healthy. Nitric acid lotion gives burning pain for five minutes after it is applied.

July 22d.—Has continued to improve progressively. All the sores now healed.

## II. *Fatal Case of Sloughing of the Labia, &c.*

November 19th, 1824.—Mary Williams, aged fifteen, of florid complexion; has previously enjoyed good health, but her constitution appears delicate; says she has not been *particularly* addicted to the use of spirits. The upper and inner part of the right labium has sloughed to a considerable extent, as well as a corresponding portion of the left labium; together with the nymphæ and præputium clitoridis. A considerable portion of the under part of both labia is likewise lost; and the ulceration has even extended to the perineum and nates. The ulcerated parts have a dark appearance, discharging dark bloody matter; and the surrounding integuments are red and painful. There is a good deal of burning pain experienced in the parts, with troublesome itching and shooting, especially about the anus. She suffers considerably whenever she has a motion; and, on making water, bleeding takes place. She is extremely weak, and entirely confined to bed. Sleeps badly. Pulse 120, small and jerking; appetite very bad; tongue coated with yellow fur; bowels open by medicine. When asleep, perspires profusely, but otherwise her skin is burning hot and dry. Urine high coloured. Menstruated a week ago, but up to that time had not been regular for five months.

About two months ago she observed a discharge from the pudenda, but without scalding. About two weeks afterwards, she felt considerable itching of the labia and perineum. A hard red lump formed in the genital fissure, which itched, and, after being scratched, ulcerated. On her treating the labia in the same way,



**Mr. Green's Cases of Sloughing Ulceration. 131**

small pimples were produced, which soon became sores, and quickly deepened. About three weeks ago, these sores began to spread, and to excite burning pain; they had a dark appearance, and were covered with clots. At this time she was attacked with rigors, which lasted a few minutes, and terminated in sweating. She has taken pills, which did not affect her mouth, and applied lotions to the parts, previous to her admission, which however afforded no relief.

P. Rhæi c. Hyd. Submur. gr. xij. statim.—P. Ipecac. C. gr. viij. o. n.—Mist. Potas. Cit. c. Tr. Opii, m. v. quartis horis.—Hirudines x. publi.—Acid. Nit. Fort. ulceribus.

Nov. 21st.—Nitric acid applied by means of a camel's-hair brush. The pain was not very severe at the time, but, about ten minutes afterwards, considerable smarting and burning pain was felt.

26th.—Sloughs extending. An ulcer, of the size of half-a-crown, on left groin, which has a dark mottled appearance.

R. Pil. Opii, gr. i. sextis horis.—Acid. Nit. Fort.

December 1st.—Deep ulceration, with sloughing, of the size of a crown-piece, discovered on the lower part of sacrum. Considerable excoriation extending from it along the fossa of nates.

Vini Rubri, ℥ iv. quotidie.—Turpentine dressing to be applied after the wash. Cat. Dauci ulceri super sacrum.—Extra meat.

3d.—Bowels purged. Pain of sore relieved.

Omitt. Mist. Potassæ et P. Ipec. C.—Repet. alia.

5th.—Sores look better, and there is less surrounding redness.

Porter ℥i., Brandy ℥vj. daily.—Arrow-root.—Wine and Sago to be omitted.

13th.—Several deep ulcers from pressure, one on each trochanter, and one on right ileum.

Lotio Plumbi.—Cat. Lini.—Repet. medicamenta, &c.

January 8th, 1825.—All the sores looking better. Motions passed only at night, and then involuntarily. Pulse 128, small and fluttering.

14th.—Has eaten nothing since the 9th. Refuses brandy; takes beef-tea and porter. Sore on sacrum has filled up, having been strapped with equal parts of Emp. Plumb. et Emp. Sapon.; but there is a dark spot in the centre.

Acid. Nit. dil. m. x. ex Aquæ ℥ iij.—Syrupi q. s. ter die.—Porter ℥i.

18th.—A fistulous opening, discharging dark thin pus, in right groin. An ulcer, the size of palm of the hand, on right ileum. Ecchymosis on ribs and extremities. Takes her porter and four eggs daily.

Emplast. Plumbi.—Repet. alia.

26th.—Gradually sunk, and died this day in great pain.

*Two Cases of Sloughing Ulceration, in which repeated Bleeding was employed.* Treated at the ST. JAMES'S INFIRMARY, by Mr. ROSE.

CASE I. *Sloughing Sore of the Penis.*

David Andrews, thin, and of a dark complexion, twenty-three years of age, was admitted into the St. James's Infirmary, on the 27th April, 1817, under the care of Mr. Rose. He had a deep sloughing sore on the inner prepuce, immediately behind the corona glandis, which had burrowed into and destroyed the greater part of the glans, almost entirely separating that body from the extremities of the corpora cavernosa: it had also penetrated into the urethra, allowing the urine to pass through the wound. The whole of the sore was covered with a deep slough; the edges were jagged, and surrounded by a dark red margin. His tongue was dry and rough. He was emaciated; had much thirst, with a flushed countenance, a hot skin, and a quick small pulse. He complained of burning pain in the sore, which he said had been somewhat relieved by a bleeding that took place from it on the preceding day. The sore had been present for a fortnight, and he had taken mercurial pills from its first appearance.

Fiat V.S. ad  $\mathfrak{xij}$ .—R. Extracti Opii, Ext. Conii, aa  $\mathfrak{Si}$ .; Aquæ font.  $\mathfrak{z}$  iij. M. fiat lotio diligenter utenda; et applicetur Lotio Saturn. circa penem.  
—R. Magnesiae Sulphatis,  $\mathfrak{z}$ iss.; Liquor Antimon. Tartariz. m. xxv.; Aquæ Menth. Pip.  $\mathfrak{z}$  iss. M. quarta quaque hora sumend.—Capiat Pulv. Ipecac. Comp. gr. xv. hora somni.—Diet, Tea and Barley-water.

28th.—The sloughing goes on. The blood is very much cupped. Bowels open; pulse sharp and quick.

Repet. V.S. ad  $\mathfrak{z}$  xiv. et repet. cætera.

29th.—Continues very feverish. Pulse 100; little or no sleep; skin dry and hot; tongue furred; lips parched. The blood taken yesterday cupped and buffy. The sloughing has extended itself in the glans, the greater part of which is gone. The dark mortified part terminates abruptly in the shining red margin, and there is no appearance of separation.

Repet. V.S. ad  $\mathfrak{z}$  xij. Repet. med. et lotio.

30th.—The blood taken yesterday is but slightly cupped or buffy. He slept a little, and is less irritable. The sore is quieter.

Pergat, et adhibeatur Cataplasma commune vespere.

May 1st.—Some healthy pus appears in the wound, which is easier.

Repet. Catap. et cætera.—Beef-tea frequently.

4th.—The sore has rapidly improved: the sloughs are separated, and granulations every where appear. Has left off his medicine since yesterday.

To have nourishing diet, and take an infusion of bitters with Epsom salts.

8th.—Wound dressed with Bates's camphorated lotion, and healing favourably.

Porter, &c. Omit medicines.

27th.—Sore entirely healed.

CASE II. *Sloughing Sore of the Genitals in a Female.*

Mary Gardiner, nineteen years of age, thin and pale complexioned, applied as an out-patient at the St. James's Infirmary, on the 11th of August, 1821, on account of two extensive sores, of a foul and sloughy appearance, with excoriating discharge, situated within the edge of the vestibulum; one at the upper part of the left labium pudendi, and the other on the same labium nearer the perineum. She stated that she had been ill about two months.

Mr. Rose directed her to use a simple lotion, to take some aperient medicine, and to return next day; but she ceased attending at the Infirmary, and was not seen again until the 16th of September, when she was visited at her own house. She was then much emaciated, and unable to leave her bed. She stated that she had been rubbing-in mercurial ointment, night and morning, from the middle of August until the 8th or 9th of September. About the 24th of August, she was profusely salivated; and at that time the sores became more painful, and begun to spread. She left off the ointment for a few days, but returned to it again, and continued it for the first eight or nine days of September. Her gums on the 16th were still much ulcerated. The two sores on the genitals had run into one, and had destroyed a considerable part of the left labium and nympha, extending some way towards the pubis and groin. The base of this sore was covered with a dark ash-coloured slough, the margin was jagged and irregular. Towards the groin, a segment of skin, of about an eighth of an inch in width, overlapped the ulcer; which segment was completely sphacelated and black. The integuments adjoining this were of a deep shining red colour. There was no appearance of suppuration, but a good deal of excoriating ichorous discharge. She complained of violent burning pain; had a quick, small pulse, about 130; a flushed face, a dry furred tongue, and a very hot skin. Her bowels were open; she had no appetite, but constant thirst. Had been taking wine and spirits to support her strength.

Fiat V.S. ad  $\frac{3}{4}$  xiv.—R. Magnes. Sulphat.  $\mathfrak{z}$ i.; Liq. Antimon. Tart.  $\mathfrak{z}$ ss.; Aquæ Menth.  $\mathfrak{f}$ ij.  $\mathfrak{z}$ ixss. M. fiat haustus quarta quaque hora sumendus.—Adhib. Aqua fontana diligenter ulceri.

September 17th.—The blood is buffy and slightly cupped. There is no material change in her symptoms. The sore has rather increased, but she thinks the cold application gives her ease; and the thirst is not so incessant. Pulse as yesterday; several stools.

Repet. V.S. ad  $\frac{3}{4}$  x.—Repet. medicamenta.—To have a cupful of weak beef-tea occasionally.—Diluent freely.

18th.—The sore has considerably increased, but the surrounding redness has diminished, and a little good pus oozes out amongst the sloughs. She says the pain is much relieved, except when

the urine passes. Her tongue is more moist; her pulse 120, soft and feeble; her skin is more natural. Slept a little in the night. The blood taken yesterday is buffy, but not cupped. Several stools.

She is directed to continue the cold application, and to use a little soft ointment on lint, to defend the parts, before she empties the bladder.—To have beef-tea often, and a little Cape wine.—R. Mist. Camphoræ, ℥ij.; Ammon Subcarb. gr. xij. M. capiat ℥iss. quater die.—R. Pulv. Ipecac. Comp. gr. viij. hora somni sumendus.—Omitt. haustus.

19th.—The sloughs, in one or two parts, are beginning to separate, and some spongy granulations appear. She slept well. Pulse 112.

Adhib. Catap. ex farina Sem. Lini.—R. Mist. Camphoræ, ℥ij.; Decoc. Cinchonæ, ℥iv.; Ammonia Subcarb. gr. xij. Capiat ℥iss. quater die.—Good broth often.

21st.—Sloughs all detached round the edges, and beginning to separate from every part of the sore.

R. Decoct. Cinch. ℥xj.; Tincturæ Ejuad. ℥i.; Acid. Sulph. dil. m. x. M. quarta quaque hora sumend.

25th.—The sloughs are all separated; and the wound lightly dressed with lint, covered with a pledget of simple ointment.

October 1st.—Wound healing favourably; strength gradually improving; bowels relaxed.

To apply a flannel bandage.—Wound dressed with Bates's camphorated lotion.—Omitt. med.—Capiat Mist. Cret. c. Tinct. Opii. p. r. n.

3d.—Bowels quiet since the 1st.

Capiat Decoct. Sarsæ. Oj. quotidie.

The sore was not entirely healed until the 25th of November, owing to her extreme debility.

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#### ANEURISM.

*A Case of Popliteal Aneurism, in which the Femoral Artery was found to be divided into two Trunks, which again became re-united where the Vessel passes through the Tendon of the Triceps Muscle.* Treated at the MIDDLESEX HOSPITAL, by Mr. C. BELL.

FEBRUARY 18th, 1826.— — Adams, a large and muscular negro, was admitted into the Middlesex Hospital, having a pulsating tumor situated at the upper part of the calf of his left leg, just below the knee-joint. He did not know his age, but he seemed to be between forty and forty-five. He first perceived the tumor four years ago; it was then small, and not attended with pain or inconvenience. About a month ago the swelling suddenly became larger, and he experienced great numbness in the leg and foot.

The situation of the tumor is unusual, being not properly in the popliteal cavity, but further down. It is more superficial than a common popliteal aneurism, and rises out between the heads of the gastrocnemius.\* The artery at the groin is very large, and easily felt. On compressing it, the pulsation of the tumor can be stopped; but the pulsation cannot be stopped by pressing on the middle of the thigh. For these reasons, Mr. Bell stated that he should tie the artery lower in the thigh than usual.

*Operation.*—On Monday, 20th February, the operation was performed. It was attended with no unusual circumstances. The artery was easily found by lifting the edge of the sartorius muscle, and neither the vein nor nerve were exposed. After the ligature was applied, the pulsation of the artery against it was distinctly observed by all who were near the patient. As an arterial branch arose from the trunk close above the ligature, it was purposely cut across. It threw out its blood with great force, and was secured.†

The moment after the artery was tied, Mr. Shaw, who had his hand on the tumor, said that the pulsation was stopped; and, on asking the patient what he felt, he immediately answered, "There is no more painful beating." But Mr. Shaw, keeping his hand on the tumor, felt the pulsation distinctly return in a few seconds: and so distinct was the pulsation, that he remarked it to Mr. Bell; who, after putting his hand upon the tumor, and observing that the ligature was moved by the regular pulsation of the artery, replied, "Well, be it what it may, I shall do no more: we have done all we ought to do." The edges of the wound were brought together with short adhesive straps, and the patient was carried to bed. On examining the tumor half an hour afterwards, the pulsation was nearly as distinct as before the operation, and quite different from that *thrill*, or slight pulsation, which is so frequently found after this operation.

23d.—The pulsation of the tumor stopped this morning, (the third after the operation.) Hitherto the patient had not suffered in consequence of the operation: but he is now ill and feverish; he has a cough, and complains of pains through the body; the wound is not uniting kindly. A very remarkable impression seems to have been made on his constitution, and this at the very time of the pulsation of the tumor stopping.

\* In the figure it may be seen that the popliteal artery is enlarged above the proper aneurism. The point where it began to be dilated was opposite to the usual place for popliteal aneurism to form. This was ascertained on removing the parts from the body.

† Mr. Bell, in his clinical report on this subject, stated that, when we could discern a branch coming off in this manner, we ought either to apply the ligature upon the main artery above the branch, or to take up the branch separately; for if the blood be permitted to take its course through that branch, the coagulum is prevented from forming to any extent, and therefore the ligature upon the main artery becomes insecure.

24th.—He is very ill. The short cough, which he has had for some time, is much worse. He has pain; but whether in his stomach or chest, cannot be exactly determined, from the indistinctness of his account of it.—Six ounces of blood have been taken from his arm; and he is ordered to have an opiate linctus, to relieve his cough.

26th.—Gradually sunk, and died this morning. The whole line of the sartorius muscle had become swollen and tender, and a serous effusion distilled from the wound.

During the progress of this case, no thermometrical observation was made on the heat of the limb; which throughout felt hotter than the other. It was obvious that the circulation through it was completely restored.

*Dissection.*—The sartorius muscle, from end to end, was affected with inflammation, of an erysipelatous character, which had spread along the whole course of its sheath. The muscle itself was swollen, and tumid with serous effusion.

Just below the part where the profunda was given off, the femoral artery was divided into two nearly equal branches. These ran down parallel to each other, to the part where the artery passes through the tendon of the triceps muscle: here they reunited. The ligature was found on the more superficial artery, a little above this reunion.

At his next clinical lecture, Mr. Bell made the following remarks: There was no delay nor difficulty during the operation; the sartorius was lifted up, the fascia covering the artery opened, and the sheath of the artery dissected, by scratching with the point of the knife, and carrying the back of the knife forward. If this had not been done with precision, we see that very awkward circumstances might have occurred by cutting the deeper artery at the point of reunion.

The surprise is now, not that the tumor should have continued to beat, but how it should have ceased to beat by a ligature being put only on one of the arteries, either of which was fully sufficient for the circulation of the limb.

It was Mr. Bell's opinion that the unfavourable termination in this case arose not from the constitution sympathising with the condition of the tumor, but in consequence of the very peculiar condition of the sartorius muscle, and the fever which it produced; and that to the weakness of the circulation thence arising, the coagulation of the blood in the aneurism, and consequent stopping of its pulsation, were to be attributed.

This case was brought forward by Mr. Bell in his lecture before the College of Surgeons, on Tuesday, 9th May, in illustration of the pathology of aneurism. He stated that, in the operation, the effect of a ligature applied on the main

artery is not, as is generally supposed, to prevent the blood from flowing through the sac. For the circulation through the collateral vessels is so free and so immediate after the ligature has been applied, that the blood flows freely into that part of the vessel which is below the point tied, and also through the aneurismal sac. This position he illustrated by several cases; and he referred to the one we have just related, as a striking instance that it is not necessary to obstruct the passage of the blood altogether, in order to procure coagulation in the tumor. In this case, tying only one of two branches of equal size, both of which supplied the aneurism, (that is to say, having cut off merely one-half of the blood passing through the tumor,) was sufficient, in process of time, to allow a clot to form in the sac. The effect of our common operation, of tying the artery at a considerable distance from the seat of the disease, seems therefore to be merely to diminish the impetus of the stream of blood, by obliging it to pass by a circuitous route; and the consequence of this change is, to allow the blood in the aneurismal tumor to coagulate slowly, and finally to obliterate the passage through it.

## EXPLANATION OF THE FIGURES.

Fig. I. Is a drawing from the preparation. It exhibits the crural artery, after it has given off the profunda *a*, dividing into two arteries, of which *b e* is one, and *c d* the other. They unite again at *d*. *f* is the popliteal artery irregularly dilated. *g* is the proper aneurismal sac. At *h*, the anterior and posterior tibial arteries are seen coming out from the lowest part of the tumor.

Fig. II. Is a plan of the preparation. *a* marks the profunda. *b* the superficial branch which was tied with a ligature. *c* the deeper branch. *d* is placed opposite the point of reunion of the two arteries. *e* the popliteal artery dilated. *f* the proper aneurismal tumor. *g* the division into anterior and posterior tibial arteries.

In the first figure, the two arteries are slit open, to show that in *b e* an extensive clot has formed above the ligature, and also a smaller clot below the ligature. The latter clot extends to where the two arteries reunite.

The deeper branch (*c, d*.) is seen to be perfect, except that its diameter is a little diminished opposite to where the ligature was applied upon the superficial branch.

Sections of the popliteal artery *f*, and the aneurism *g*, were made, to show that they were filled with firmly coagulated blood. The external layers of coagulum were firmest, while those near the centre were comparatively soft. The coagulum extended into the tibial arteries to the extent of about an inch below the tumor.





## UTERINE HEMORRHAGE.

*Case of Uterine Hemorrhage, occurring in a Patient of the MIDDLESEX INFIRMARY, in which Transfusion of Blood was employed unsuccessfully.* By GEORGE JEWEL, Esq.

ABOUT two o'clock on the morning of Friday, the 9th instant, a woman, of small stature and delicate constitution, who had previously been the subject of several very severe labours, was delivered, by the natural efforts, of a small dead child, after a difficult and protracted labour. There being some discharge of blood, the placenta was removed, without any obstacle, a few minutes after the birth of the child. Within half an hour the patient was seized with rigors, and complained of cold; and, upon examination, I found that a large quantity of blood had been effused, that rapid respiration and coldness of the extremities had supervened, and that the pulse was not perceptible at the wrist. Forty drops of Laudanum, and a drachm of Sp. Ammon. Aromat., were administered; and Mr. Allan, of Leicester-square, was sent for. Upon his arrival, the hemorrhage had ceased, at least externally; and the uterus, though not contracted into a hard tumor, did not appear to be distended. Pressure was made upon it by means of a band tightly applied round the body. Meanwhile the ghastly and sunken appearance of the patient's countenance,—her inability to remain a moment in any posture,—her pushing off the bedclothes, desiring to be raised up, tossing about her arms, and rapid breathing, seemed to threaten immediate dissolution. Eighty drops of laudanum, with a table-spoonful of brandy, were given in a little gruel, with the view of tranquillising the patient, and of inducing a disposition to slumber; which, however, was interrupted, in the course of five or ten minutes, by a return of the irresistible desire to change her position, tossing of the arms, and other alarming symptoms. The laudanum was, therefore, repeated in smaller doses, with the addition of a little brandy and gruel, every five or ten minutes, as the symptoms demanded.

As it was possible that hemorrhage might be going on internally, an examination was instituted by introducing the hand; but only two inconsiderable clots of blood were found within the uterus. These were removed, and a pillow, rolled firmly up, being applied over the belly, was bound tightly in that situation by a broad band round the waist.

The attempts to support the patient by the frequent repetition of laudanum and brandy, with the addition of carbonate of ammonia, having been continued for four or five hours, without improving the patient's condition; and the pulse being scarcely perceptible at the wrist, while the extremities had become cold, and the whole surface bedewed with a cold clammy moisture, the operation of transfusion suggested itself, as still affording a chance of saving the patient's life. Mr. Boyle, the other surgeon of the Infirmary, was

sent for, and, he concurring in the propriety of the operation, it was performed with as little delay as circumstances would admit.

No vein could be found at the bend of the arm large enough to admit the small ivory tube of the syringe with which we were provided; and therefore the right external jugular vein was opened, and the tube being inserted, the syringe (which contained three drachms) was filled with blood drawn from the arm of the patient's husband into a small bason, which was placed within a larger one containing warm water; and due care being taken to expel every particle of air from the syringe, the blood was very gradually and gently injected through the tube into the jugular vein. The syringe was filled and discharged sixteen times in the space of about twenty minutes; but as, in turning up the point of the instrument, to expel any air which it might contain, some blood escaped each time, it was calculated that little more than four ounces were actually thrown into the vein. During the operation, the patient complained of being sick, and, towards the conclusion of it, the desire to change her posture became irresistible, and, by her turning her neck, the tube was displaced. With the exception of sickness, not the slightest deviation in the previous train of symptoms was produced.

There was now every indication of approaching dissolution, and, within a quarter of an hour from the termination of the operation, after several long sobs, she expired.

Permission was not obtained to examine the body until Monday afternoon, (the 12th.) Although the greatest care had been taken to prevent air from entering the vein during the operation, yet the possibility of some having been drawn in, (during the momentary removal of the finger from the end of the tube, to allow the point of the syringe to be inserted into it,) and thus perhaps contributed to accelerate the death of the patient, having been suggested, attention was especially directed to ascertain the fact. With this view, the superior and inferior vena cava, and the pulmonary artery, were secured with ligatures; the heart was then removed from its situation, and immersed in a bason of water. A tumbler, filled with water, being held inverted over the heart, the latter was punctured, and, on being pressed with the hand, a few minute bubbles of air escaped into the tumbler,—in quantity not amounting to a drachm. The heart contained very little coagulated blood. The uterus was quite empty. The antero-posterior diameter of the pelvis was barely three inches and a half, and the other dimensions were proportionally small. The promontory of the sacrum formed a sharp angular projection.

It may be a question whether the small quantity of air found in the right ventricle of the heart, was the product of putrefaction, or the remains of a larger portion of injected atmospheric air, the rest of which had been carried into the circulation?—Without pretending to determine this, and the

numerous other interesting inquiries which the case suggests, I deem it a duty to submit this succinct statement to the consideration of the profession, as it can only be by an unreserved communication of such facts that a just estimate can be formed of the value of the operation of transfusion, as a means of saving life under circumstances where other measures have proved unavailing. The operation itself appears a reasonable one: at the same time, I cannot help expressing considerable doubt as to the propriety of anticipating any decidedly favourable result from the introduction of a few ounces of blood into the system of a patient sinking from a loss of several pounds. This doubt, however, is to be determined by general experience, and certainly not by a few successful or unsuccessful cases.

24, Sackville-street, Piccadilly; June 13th, 1826.

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#### OVARIAN TUMOR.

*Case in which an Attempt was made to Extirpate Ovarian Tumors.*

By Dr. GRANVILLE.

DR. GRANVILLE proceeded, on the 1st of last month, to perform an operation, with the intention of removing several ovarian tumors from a woman, formerly a patient at the WESTMINSTER GENERAL DISPENSARY, in the presence of Messrs. BRODIE, KEATE, EARLE, &c. The two former gentlemen had, some time before, examined the woman in consultation with Dr. Granville, and inquired into the history and nature of her complaint. Although this case was not deemed by them a very eligible one for such an operation, it was nevertheless attempted, from a conviction that the patient's life, under the pressure of the disease, could not be saved,—nor, indeed, prolonged beyond one or two more years: whereas, if the operation succeeded, her existence might be extended to a much longer period. The patient, moreover, appeared so very desirous of a trial being made to operate upon her, and exhibited, in various respects, so many promising concurring circumstances in her constitution towards the success of the operation,—particularly a passive temperament, and an almost total absence of irritability,—that all the gentlemen present agreed in thinking Dr. Granville fully warranted in his endeavours thus to save the poor woman from the effects of an otherwise incurable malady.

The patient was prepared by a fortnight's absolute quiet and low diet, with occasional aperient medicines. She was directed to take a mixture containing hydrocyanic acid for two or three days previous to the operation; and a day was

selected for performing it, when the thermometer stood at only seventy-five degrees.

Dr. Granville proceeded to make an incision through the integument, two inches above the umbilicus, in a line between it and the inner margin of the rectus muscle of the left side, which incision he extended as low down as the superpubian region, to seven inches and a half in length; carefully dissecting the various parts, until he came to the peritoneal lining of the abdomen. This he divided at the upper part of the external incision, and continued the division of that membrane downward for a space of between three and four inches; when the intestines, with part of the omentum, in rather a vascular condition, presented themselves, along with the margins of two of the tumors, right and left of the wound. It had been agreed, anteriorly to the operation, that if, on examination, after a sufficient incision, numerous and strong adhesions were detected, the separation of which would materially increase the risk of the patient, all further proceedings should be suspended. Dr. Granville, therefore, passed his hand into the abdominal cavity, and ascertained that, although the tumors (of which there appeared to be several) felt loose when examined externally, they were, in fact, adhering in various directions by strong bands. This was particularly the case with regard to the tumor which ascended on the right side towards the liver, and on the left to a large cyst which had contained ten pints of a highly albuminous fluid, that had been removed some time before by tapping, and which was found to adhere, throughout the best part of its anterior and lateral surface, to the parietes of the abdomen, and to some of the convolutions of the intestines. Both Mr. Brodie and Mr. Keate having satisfied themselves that such was the state of the parts, it was determined to go no further, and to close the wound. This Dr. Granville did by means of hare-lip pins, instead of stitches, placed at short distances; and we understand that the operator attributes, in a great measure, the rapidity with which the wound healed in the course of a few days, leaving a neat and firm cicatrix, with scarcely any point of suppuration, to this mode of dressing it.

The patient, who bore the incisions with the greatest fortitude, and who assured her physician that the pain was nothing compared with that of labour, (thereby furnishing us with a measure of the suffering experienced on occasions of this nature,) never felt a moment's uneasiness after the first night, which was rather restless. No symptom of inflammation or fever occurred; the spirits continued good; and the pulse never varied more than from eighty to eighty-two in a minute. She left her bed at the end of the week. During the incisions scarcely a table-spoonful of blood was lost.

As far as it goes, this case adds another to the many instances on record of the impunity with which the cavity of the abdomen may be laid open, and is an encouraging step

towards attempting, under proper circumstances, and after mature deliberation, an operation, which Mr. Lizars, of Edinburgh, has the merit of having revived on rational grounds Dr. Granville intends to publish this, along with some other cases, in a work on diseases of the ovary, which he has been for some time preparing.

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## COMMUNICATIONS.

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*Documents exhibiting the actual State of Vaccination among 30,117 Children of the Poor in the Metropolis; drawn up from Observations and Calculations made at the Royal Metropolitan Infirmary for Sick Children.* By A. B. GRANVILLE, M.D. F.R.S.

AT this season of increased alarm at the prevalence of small-pox in the metropolis and various parts of the country, it cannot be an act of presumption to suppose that every thing which relates to the inoculation of cow-pox will be received with interest by the profession.

The subject of vaccination has very recently engaged, in an unusual degree, the attention of the public and of government. This has principally arisen from the vague assertions that have been made respecting it, inducing the better-informed classes of society to entertain wavering opinions respecting cow-pox, notwithstanding the able and conclusive Report from the National Vaccine Board, the members of which, and its indefatigable president, took such pains to investigate the question.

The efforts made by those individuals have placed the truth in so clear a light, that any further observation may be deemed unnecessary. But, as its demonstration can be further promoted by a collated mass of well-digested facts, found in the registers of the Royal Metropolitan Infirmary for Sick Children, I have arranged and computed a general table of the state of vaccination among the children admitted during the last five years and a half, in which every point connected with their history, as far as it relates to small-pox and cow-pox, is faithfully recorded: supplying, thus, positive, instead of only presumptive, evidence of the incorrectness (and in many instances the groundlessness) of the reports lately disseminated respecting the pretended inefficacy of vaccine inoculation.

The general table to which I allude, and which the directors

and governors of the Institution have deemed of sufficient importance to be printed and circulated among the subscribers, may, perhaps, be considered as not unworthy of a place in the New Series of the London Medical and Physical Journal; in which case, a few explanatory observations, and an illustrative diagrammatic chart, will enable the reader to comprehend more readily that document, rich in facts highly favourable to a system from which parents have derived the greatest measure of comfort.

The materials out of which the general table is constructed are supplied by the parents of the children, when the latter are registered on their admission. On such an occasion, and touching such an object, the parents can have no possible motive for deceiving the medical officers; so that the information, thus obtained, may be presumed to be accurate. They are asked whether the child, whose age has been previously ascertained, has had the small-pox natural or inoculated; whether it has been vaccinated, or remains yet unprotected. Whenever small-pox has occurred after vaccination, the parents have been found ready enough to supply that fact, which, after as accurate an investigation into the reality of the case as can be instituted, is regularly registered. The whole of this information is arranged in appropriate columns, under the superintendence of the respective physicians and surgeons; and a monthly report of it is made by them to the directing committee. The facts thus learned extend, at this moment, to upwards of 30,000 children, under the age of thirteen years, whose history, in regard to small-pox and vaccination, has thus been narrowly inquired into.

From these facts the following conclusions are derived:

1st. That the practice of vaccination is steadily gaining ground among the poorer classes of society.

2d. That the inoculation of small-pox is of rarer occurrence than heretofore.

3d. That in proportion as the former practice increases, and the latter decreases, so have the cases of natural small-pox diminished.

4th. That parents, in general, are much less indifferent than hitherto to the great advantage of securing their offspring, by an early vaccination, from the ravages of small-pox.

5th. That small-pox after vaccination has been of very rare occurrence; and, when it has occurred, it has been mild in its course, and harmless.

6th and lastly. That, although two cases of death, referred to small-pox after vaccination by the parent, have been re-

ported to the medical officers since the first foundation of the Infirmary, positive proofs do not exist of the real nature of those cases; and they have, therefore, not been noticed in the table.

The computations contained in the general table have been made in two ways. In the first, the proportions are given, as deduced from the actual numbers registered, in units and fractions. In the second, the proportions are set down in decimal fractions only, deduced from what the numbers registered would have given, had they extended to a million: these latter calculations being still founded on the real numbers. In pursuing the second mode of calculating, I had the satisfaction of being assisted by my friend Mr. Finlaison, the able actuary of the National Debt Office.

Those who, to the language of numbers, prefer that which speaks to the eye, will probably find the diagrammatic chart, with which I have accompanied the present communication, more useful. Here inspection alone will show that the *red line*, denoting the progress of vaccination, rises higher in the fourth and fifth period (1824-1825), because at that time small-pox, after having sensibly diminished during the preceding year, had (as may be seen by the *blue line*), again increased, and raged almost epidemically; so that more parents flew to the resource of cow-pox, in hopes of saving their children. This latter circumstance caused a corresponding and a remarkable depression in the *green line*, intended to mark the diminution of prejudice against, or carelessness respecting, cow-pox.

With regard to the *yellow line* of the chart, which is meant to exhibit the extent to which the inoculation of small-pox has been carried within the whole period embraced by that document, it speaks for itself. This baneful practice, which, more than any prejudice against vaccination, opposes itself to the full and glorious result of the Jennerian discovery, by keeping up the *fomes* of contagion intended to be extinguished by the cow-pox, is fortunately on the decline, and must continue to decline, if the members of the medical profession act with firmness. With what regret, then, must the public witness any attempt to perpetuate, by the proposition of extravagant experiments, a loathsome disorder, which, as the experience of many continental districts has proved, may be completely eradicated, after having existed in Europe for a period of thirteen centuries, by a steady, persevering, and, I may add, correct performance of vaccination!

16, Grafton-street, Berkeley-square;  
7th of June, 1826.

# A GENERAL TABLE, embracing the Medical History of Thirty Thousand One Hundred and Seventeen Children, (under Thirteen Years of Age,) As far as the same relates to the occurrence of Natural Small-Pox, or to the inoculation of Small-Pox and Cow-Pox; showing the progressive increase of the latter Practice, and corresponding decrease of inoculation, with the effect of both on Small-Pox generally.

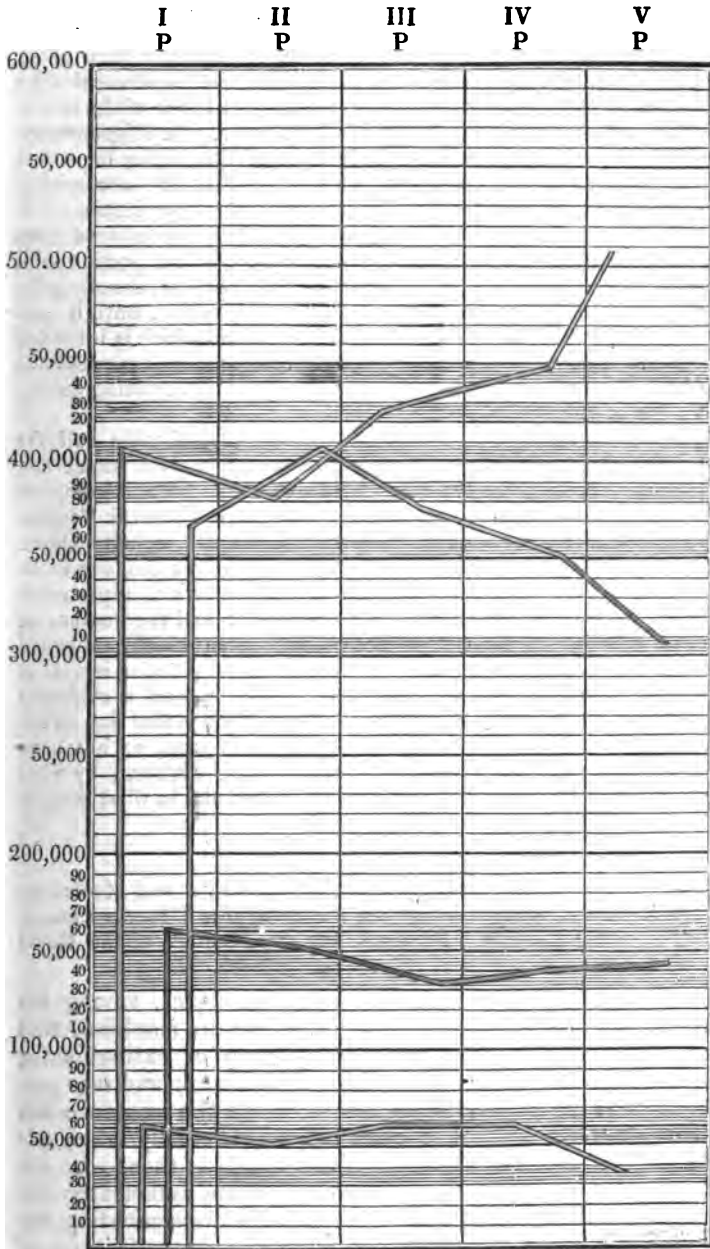
Periods.	Number of Children admitted.		Of whom had been vaccinated.		Proportion of the Vaccinated to the Admitted.	Supposing the Admitted to have been 1,000,000, then the vaccinated would be	Had been inoculated with the Small-Pox.		Proportion of the Inoculated to the Admitted.	Supposing the Admitted to have been 1,000,000, then the inoculated would be	Had had the natural Small Pox.		Proportion of the Natural Small-Pox to the Admitted.	Supposing the Admitted to have been 1,000,000, then the inoculated would be	Had been left unprotected.		Proportion of the unprotected to the Admitted.	Supposing the Admitted to have been 1,000,000, then the unprotected would be	Proportion of the unprotected to the Vaccinated.	Number of Cases of Small-Pox after Vaccination.	Proportion of such Cases among the Vaccinated.
	P.	S.	P.	S.			P.	S.			P.	S.									
1 <sup>st</sup> Period. Oct. Nov. Dec. 1820. 1821	6953	2422	2461	995	One in 2.45	407,787	324	524	One in 16.17	61,829	947	413	One in 6.23	160,479	2821	814	One in 2.70	869,911	One in 1.10	6	One in 576
2 <sup>d</sup> Period. Jan. Feb. Mar. 1822.	8475	2291	8456	2701	One in 2.60	384,265	244	127	One in 18.95	52,781	690	400	One in 6.50	153,649	2028	854	One in 2.44	409,804	One in 0.93	4	One in 675
3 <sup>d</sup> Period. From 1st April, 1822 To 1st April, 1823.	3239	1967	1361	948	One in 2.30	425,135	149	170	One in 16.34	61,201	433	266	One in 7.43	134,527	1297	673	One in 2.68	379,188	One in 1.17	None	None
4 <sup>th</sup> Period. From 1st April, 1824 To 1st April, 1825.	3285	1711	1434	796	One in 2.23	446,151	187	114	One in 16.53	60,490	439	262	One in 7.70	140,675	1206	639	One in 2.85	350,683	One in 1.37	2	One in 1115
5 <sup>th</sup> Period. From 1st April, 1825 To 1st April, 1826.	3000	1441	1469	786	One in 1.53	507,768	88	87	One in 26.12	38,280	459	186	One in 6.89	145,012	989	883	One in 3.24	808,939	One in 1.85	11	One in 206
Totals . . . . .	20,286	9822	8316	4335	Average Proport. One in 2.4	428,702	988	608	Average Proport. One in 17.8	55,915	2857	1526	Average Proport. One in 6.8	146,583	7806	3263	Average Proport. One in 2.7	868,529	Average Proport. One in 1.16	25	Average Proport. One in 589
General Totals . . . . .	80,117		12,851																		

30,117

OBSERVATIONS.—This inquiry extends to a period of seventeen years and a half, being two-thirds of the time since vaccination was first practised. The children being admitted until the age of twelve years, all those who were examined and registered in 1821, represent, as far as they are concerned, the state of the practice of vaccination for the space of twelve years previous to 1821; to which are to be added, the children admitted in the course of the last five years and a half. It is also to be remarked, that the 30,117 children, examined as to the question of small-pox and cow-pox, equal one-fourth of the total number of births that have taken place during the last five years and a half, within the Bills of Mortality. So that we have the means, by this Table, of making up our mind as to the real merit of vaccination, as far as that practice extends to one-fourth of the births in the metropolis, and for a period equal to two-thirds of the time since that practice was first adopted.

Looking at this Table as affording important data for calculating the progress of vaccination, it appears that, out of a mass of 100,000 children, taken indiscriminately from among the poorer classes of the population of the metropolis, 42,670 will be found to have been vaccinated, 38,552 to be still unprotected, 9,500 to have had the natural small-pox, 179 only to have undergone, during this period, an attack (generally modified) of small-pox, notwithstanding previous vaccination; a proportion so small, and which, indeed, must be considered as a triumph of vaccination, who can consider so trifling an exception as a proof of the failure of the Jennerian discovery.





Vaccinated . . . Red. | Natural S. P. . . Blue.  
Inoculated . . . Yellow. | Unprotected . . . Green.

*Diagram to illustrate the general Table of Vaccination.*

In addition to the general table of 30,117 children here given, exhibiting, by numerical evidence, the actual state of vaccination among so large a proportion of the infant population of the metropolis,—it has been deemed advisable to trace, on a diagrammatic chart, the relative position of each term of this highly important question, so as to present, at one view, without the necessity of calculation, the advance made by the practice of vaccination.

Looking at the annexed chart, in which the facts deduced from the examination of 30,117 children are applied to a portion of a scale of one million, it will be seen that the *red line*, denoting the progress of vaccination, has been steadily ascending, until it outstrips every other line, not excepting even that which is intended to mark the degree of prejudice against cow-pox, or of carelessness of the issue of small-pox, said, by many, to be still existing among the lower orders of society.

It will be found, moreover, that both the general table and the present chart supply us with approximate information on certain points, necessary for the drawing-up of a correct and complete history of vaccination, respecting which the National Vaccine Board and the Small-Pox Hospital Report are equally silent. Those points are—the probable number of children that are to be found in London and its vicinity, at any given period, unprotected by either vaccination or previous small-pox; and the number of those who, in the same given period, have been wilfully subjected to the inoculation of small-pox. As the latter practice is not, at present, countenanced by any public institution, and is evidently on the decline, as may be seen by inspecting the *yellow line* on the chart,—it is not a matter of indifference to inquire, as has been done in the general table and accompanying diagram, by what gradation it becomes less and less prevalent, and in what proportion vaccination takes its place.—A. B. G.

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*Observations on the Specific Properties of Diseases and Medicines; with Cases, illustrative of the Power of Bark in the Cure of Periodical Diseases.* By JOHN ALLAN, Member of the Royal Colleges of Surgeons of London and Edinburgh.

It is, unfortunately, in but a few examples, among the numerous catalogue of diseases incident to mankind, that remedies capable of directly controlling or extinguishing morbid processes have as yet been discovered; and it is probable that the powers of the few, of which the existence has been observed, are not so often nor so effectually taken advantage of as they might be, if the minds of those who are engaged in the practice of medicine were sufficiently impressed with the importance of carefully discriminating between those minute shades of difference in the features of

diseases, and the operation of remedies, which, though they may seem unimportant to a careless observer, often constitute essential distinctions. There is, perhaps, no department of medicine in which superior judgment is required, than in the detection of such distinctions,—in the selection of the fit remedies,—and in determining the proper periods and doses for their successful exhibition. For, to practise medicine with eminent success, it is not sufficient to be able merely to determine whether depletion or tonics be required; though even this is often a question of much difficulty. The accomplished physician ought to be capable of weighing with accuracy all the circumstances of the case, and of selecting, out of whatever class of medicines may be indicated, the individual article precisely adapted to the peculiarities of his patient's case.

In the great majority of diseases, the assistance of the practitioner extends only to reducing or restraining excessive action of the vascular system, soothing nervous irritation, and aiding or regulating secreting organs in the discharge of their functions. Blood-letting, when properly instituted as to time and quantity, may frequently arrest the progress of a disease, such as pneumonia or hepatitis; but it possesses not the property of a specific agent, nor can it be said to operate otherwise than by reducing the action of the heart and arteries below that degree which is essential to the support of the disease in question.

In many diseases, however, as phthisis, scrofula, syphilis, small-pox, measles, &c. it is impossible to induce resolution, or to arrest the course of the disease, by any means simply reductive in their operation: on the contrary, in some of these diseases,—as phthisis, for example,—when the strength of the general system is reduced to the lowest ebb compatible with the continuance of the vital functions, the morbid process going on in the affected organ is more active than ever. This proves that it is only by means of specific remedies that art can ever accomplish the radical cure of such diseases.

It must be admitted that, in a certain sense, every medicine is a specific: that is to say, every remedy possesses a property of producing a peculiar effect on the body, which cannot be precisely produced by any other article, even of the same class. Thus, opium and wine are capable of producing effects of an analogous nature; but no quantity that can be given of the one is capable of producing precisely the same effects, or of operating in exactly the same manner, as a certain dose of the other. Many medicines, in like manner,

possess in common the power of exciting the peristaltic motion of the intestines, and of increasing the quantity of secretion poured into the alimentary canal; but it is universally known that, among the class of purgatives, there is as great a diversity in their modes of operating as in their names.

The specific properties of diseases are, perhaps, no less numerous and distinct than those of remedies. Even in those complaints which are most analogous to each other, or of which the mutual resemblance is greatest, each possesses distinctive properties, or combinations of symptoms, which are peculiar to it alone, and by due attention to which it may be recognised and discriminated from all others. The importance of an exact knowledge of the specific powers of medicines, for directly counteracting or neutralising the morbid influences of diseases,—as of mercury in syphilis, and of sulphur in scabies,—is universally admitted; and the vast number of medicines, in favour of which unfounded pretensions to the possession of specific properties have been put forth by interested individuals, ought not to prevent us from endeavouring to ascertain the precise limits and extent of the powers inherent in those, the virtues of which are generally admitted.

The principal object of the present paper is to lay before the profession some facts, which seem to illustrate, in a very striking manner, the property which bark has long been known to possess as an antidote to periodical diseases. The peculiar mode in which it will be seen that the bark was administered, may also be worthy of notice and of further trial.

#### *I. Case of severe periodical Pain in the Ankle, cured by Bark.*

A shopkeeper, about thirty years of age, applied to me, about the beginning of February 1821, on account of a painful affection of one ankle. There was no swelling nor discoloration; but every night, after going to bed, it became affected with a severe pain, which entirely prevented sleep for many hours. He could not remain in bed long, but used frequently to get up and walk about in his shirt, being somewhat easier while doing so than when warm in bed. Towards three o'clock every morning, the pain attained an agonising degree of severity. After that period it remitted, and towards daylight he used to obtain a little sleep. Occasionally a considerable time would elapse after waking, before he could bear to place his foot firmly on the floor; nor could he bear friction upon the ankle when the pain was at the height, although, when it first began to affect him, he fancied that some slight relief was derived from frictions with warm flour, or with the hand alone. During the day he pursued his business without feeling

any pain whatever. Nine months before this period, the pain had commenced in both ancles, but had soon become entirely fixed in the left; and, as it seemed uniformly to increase in severity, and threatened the ruin of his health, he felt the greatest apprehensions as to the result.

I commenced the cure by purging him with calomel and the pilula colocynthidis composita, for three successive days; after which he took *ten grains* of powdered cinchona every three hours, the bowels being kept open by smaller doses of the purgatives. After he had taken twelve of the powders, the pain ceased: I advised him, however, to take twelve more. The pain never returned, but, about ten days after, he was suddenly seized, in the night, with an ungovernable fit of frenzy. He was a man of sober habits, and, on the strictest inquiry, I could not discover that he had deviated from them on this occasion. I advised him to take some purgative medicines, and to observe a spare diet.

During four years after this, I had occasionally opportunities of seeing him, and he never had the slightest return either of the pain or mental affection.

## II. *Case of severe periodical Pain of the Right Leg, cured by Bark.*

A footman, twenty-eight years of age, applied to me, on the 19th of April, 1823, on account of severe pains affecting both legs, and more particularly along the rotular aspect of the tibia. In November 1822, five months before I saw him, he had been fifteen days, during very boisterous and wet weather, on his passage from Aberdeen to London, during which time he had been deprived of regular rest, and exposed to wet and fatigue. From that period he began to suffer severe pain along the fore part of the left leg, which continued for two months, and then gradually extended to the whole of that limb. At this time the right leg likewise began to be affected in the same manner; and, when he applied to me, he still had much pain in the left, but it was most severe in the right. He described the pain as observing regular diurnal periods, coming on every afternoon at five o'clock, and increasing in severity during the night, so as entirely to prevent sleep. He declared positively that, during the five months that had elapsed since he landed from the vessel, he had never known the comfort of an hour's sleep; and that he was generally compelled to get out of bed ten or a dozen times every night, to walk about his room, so intolerable was the pain as soon as he became warm. He was considerably emaciated and very pale, with an expression of anguish imprinted on his countenance. His tongue was very much furred, although, according to his own statement, his appetite continued good, and his bowels regular.

I commenced, as in the former case, with purging, by means of compound colocynth pill and calomel, with the addition of a grain of antimonial powder to each pill. After several days purging, the pains continued unabated. I then directed *ten grains* of pulvis

cinchonæ to be taken every two hours. He called upon me twice afterwards, at intervals of about eight days. The first time he was not entirely free from the pains, but they were much less severe, and allowed him to enjoy the refreshment of sleep. He had acquired a fresh complexion, and had manifestly gained flesh. The last time he called was to inform me that he was entirely well, which was sufficiently attested by his improved appearance.

### III. *Case of severe periodical Pain in the Legs, cured by Bark.*

A married woman, thirty-seven years of age, and mother of seven children, applied to me, in February 1826, on account of severe pains in her legs. In May 1823, she had made a voyage of five days from Penzance to London, during which she had been exposed to cold and wet, and had been deprived of rest. The first night after her arrival in London, she had been seized with shiverings and with pains in her shoulders; and, for twelve months after that period, she had been constantly affected with such pains, but not always in the same part. At one period, and for some months, her hearing had been very imperfect, and her vision double. About February 1824, her left leg had become affected with severe pains, extending from the knee to the instep; and three months afterwards, the right leg had become affected in the same manner. Ever since that period her complaints had wholly centered in the legs; but such had been their severity, that she had never, during the two years, been able to pass a whole night in bed, or to obtain any sleep before daylight, as the pains usually became agonising as soon as she got warm in bed. For the pains in her legs she had attended two Dispensaries successively, for a considerable time, with little or no relief. Leeches had been repeatedly applied, and a variety of medicines taken, under the direction of one gentleman, during a period of thirteen weeks. For a considerable period before applying to me, she had desisted from seeking further assistance, and had been in the habit of attempting to deaden her sense of pain by taking laudanum daily. She was thin and pale, and her countenance was strongly expressive of habitual suffering. Her skin was dry, but not hot; her tongue somewhat furred.

After purging for three days with colocynth and calomel, I directed her to take *five grains* of powder of bark, with the same quantity of carbonate of soda, every two hours, in a little tepid water. The second night after beginning the use of these powders, (having also left off her laudanum from the time she first consulted me,) she rested without any pain; but also (probably from long habit) without any sleep. She declared that she had not known so comfortable a night for two years. Having omitted taking the powders for a week, she felt a slight return of the pains; but the renewed use of the powders speedily relieved her again, and I advised her to take three or four daily for some weeks afterwards. Since that time I have not heard of her.

The great similarity of these cases, and the efficacy of the bark, has led me to think that a report of the facts might draw to the subject the attention of those who have had more extensive opportunities than myself of treating such cases. I am aware that nothing is more likely to ruin the reputation of any medicine than praise unduly lavished upon it. Many are apt, in consequence of such encomiums, to try it in cases apparently similar, but in fact essentially different from those to which it is actually applicable, and, not finding the beneficial effect which they had been led to expect from its use, they are ready to infer, not that they had given the medicine in a case unsuited to its specific properties, but that it really did not deserve the encomiums which had been bestowed upon it. I think it, therefore, of some importance to state, that in cases of pain in the extremities, however intractable the complaint may have proved to other remedies, I have not seen benefit obtained from bark, *unless the pain had a periodical character*. The following case affords an illustration of this fact.

IV. *Case of severe Neuralgic Pain, which was not relieved by Bark, but cured by Subcarbonate of Iron.*

About the same time that the third case was under my care, a gentleman, about thirty-eight years of age, of a nervous temperament, and rather fond of his glass, who had for many years been subject to occasional fits of syncope, and to a constant nervous tremor, affecting chiefly his hands, was seized with pain of a peculiar character in the region of the right scapula. It was not increased by pressure, nor was there any swelling or other visible change. It was generally troublesome during the night, though not invariably so. It was occasionally entirely suspended for several hours at a time, without any known cause. After the use of some purgatives combined with colchicum, the disease seemed rather to increase than diminish.

Reflecting on the influence of the bark in the cases related above, I was induced to try it in the present instance; but it was not of the smallest avail, and, after three or four days' use, was left off.

The pain, some days afterwards, became more severe than ever, and the fleshy part of the forearm of the same side became affected in a similar manner. The parts at length became somewhat tender when pressed. A medical gentleman, who saw the patient on one occasion when suffering under a severe paroxysm of the pain near the spine of the scapula, was of opinion that a deep-seated abscess was forming in that situation. Leeches and fomentations to the part afforded some relief, but it was only of short duration. The patient observed, about this period, that

the pain was apparently induced by directing his attention to it, (as by talking about it;) and that it was invariably brought on by shaving. At length, the mere appearance of the hair-dresser, who attended every morning to shave him, became a certain signal for its return. Some nights, however, were passed with little or no pain, but never twenty-four hours without some paroxysms of it.

I gave the precipitated subcarbonate of iron, beginning with a scruple every six hours, increased after a few days to the extent of a drachm every four hours. Under this remedy the disease gradually declined, and soon completely disappeared; while the patient was surprised to find that the nervous tremors of his hands were very much lessened, and at times entirely suspended. His general health and strength were remarkably improved.

There seems very little to discriminate between this case and the preceding ones, except the invariable nocturnal aggravation of the pain in the latter, and the irregular and apparently capricious returns of it in the former. Yet I apprehend that the subcarbonate of iron, by which the disease in the last case was so satisfactorily subdued, might have been given without avail for the relief of either of the preceding. I am not inclined to place much confidence in any explanation that has yet been suggested of the manner in which the specific effects of medicines are produced, and am by no means disposed to indulge in speculations upon the subject. It seems, however, not unreasonable to believe that bark exerts its influence through the medium of the nervous system. The paroxysm of an intermittent fever has sometimes been prevented by a large dose, taken within half an hour of the accession of the expected fit; a space of time that would seem too short to admit of the digestion and absorption of the medicine.

With respect to the cases related above, there is, perhaps, no particular in their history more remarkable than the smallness of the doses in which the bark was given; whereas, according to the doctrines generally admitted respecting this medicine, it should be given as frequently, and in as large doses, as the stomach will bear. In the first of the cases just related, a painful disease of nine months' duration was completely subdued by twelve doses, containing altogether only two drachms of bark; a quantity much less than has often been taken in a single dose for ague. If it be correct to assume that bark, when taken into the stomach, has a direct influence, through the medium of that organ, upon the nervous system,—it may perhaps account for the power of small doses of the medicine to assume further, that the repe-



tion of its impulses a considerable number of times within a given space of time,—that is, within the period intervening between the attacks of two paroxysms of the periodical pain, in cases of the kind related above,—contributes more effectually to secure the curative effects of the remedy, than the impulse produced by a smaller number of large doses taken within the same time.

Whether this explanation be admitted or not, is a matter of little moment. The merit of being the first to ascertain that bark may be given, in certain cases, with as much, or greater, efficacy in minute than in large doses,—or rather, that it may be exhibited with the most beneficial effects in small doses, where large ones would be wholly inadmissible,—belongs, as far as I know, to Mr. Wardrop. In a paper on Rheumatic Ophthalmia, published in the tenth volume of the *Medico-Chirurgical Transactions*, he states that “bark seems to possess as specific an effect in this disease as in ague;” and that the doses he generally gave were from five to eight grains every two hours. It was from having observed the success of this practice in some cases of rheumatic ophthalmia under Mr. Wardrop’s care, that I was induced to give the bark in small doses. I have since had occasion to exhibit it in several cases of that disease, and have had the satisfaction of seeing it produce an immediate change, from a prolonged state of pain and misery scarcely to be endured, to one of composure and comfort. The following case may serve as an example:

*V. Case of Rheumatic Ophthalmia, cured by small doses of Bark.*

A poor woman, of a thin, spare habit, about fifty years of age, had suffered for several weeks from a most painful affection of one eye. The pain darted through one side of the head. During the day it remitted in a considerable degree, but every evening it recurred in such severe paroxysms as totally to deprive her of sleep. A variety of means were ineffectually tried; general and local bleeding, active purging, repeated blisters on the nape of the neck, behind the ears, on the temples, and on the forehead, afforded little or no relief. Opium and conium, in large doses, aggravated the pain in the head, without suspending the progress of the disease affecting the eye. When I first examined this, at the request of the surgeon under whose care she was, it presented extreme vascularity of the tunica conjunctiva, frequent gushing out of hot tears, an incipient superficial ulceration of the cornea, and a decided inactivity of the iris, indicating that that part participated in the inflammation. As soon as the iris had appeared to be implicated in the disease,

the patient had been placed under the full influence of calomel and opium, but without the least benefit; or, rather, with the effect of aggravating her sufferings.

From the appearance of the eye, I suspected the disease to be of a rheumatic nature; and this suspicion was confirmed by the history of the case, and more especially by the fact that the patient had formerly been subject to rheumatism in her limbs, but had been wholly exempt from that form of the disease since the affection of her eye commenced.

I recommended that she should take ten grains of bark, with five grains of subcarbonate of soda, in a little water, every three hours. At the same time she was directed to take one grain of calomel, with four grains of *pilula colocynthidis composita*, every night. The patient began taking the bark about two o'clock in the afternoon; and that very night she enjoyed more rest and comfort than she had known since the commencement of the attack. The recovery of her health kept pace with the abatement of the local inflammation, and was both speedy and perfect. A thin speck, however, remained upon that part of the cornea where the ulceration had commenced.

In this case the attack of the disease had been sudden, and apparently without any cause specifically determining it to the eye; but experience enables me to say that any cause of local irritation affecting that organ is very apt to act as a predisposing cause of rheumatic ophthalmia, when a patient is exposed to any of the ordinary exciting causes of rheumatism.

It is now admitted, I believe, even by the warmest eulogists of the specific virtues of calomel and opium in iritis, that there are certain cases in which that disease will not yield to these remedies. The case related above, in which the inflammation being of the rheumatic kind, and extending from the sclerotic coat, its proper seat, to the adjacent parts, and not having originated in the iris, would seem to be one of a class of cases in which calomel and opium ought to be avoided as injurious.

## CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim  
 illa, prius, cretà; mox hæc, carbone, notamus.—PERSIUS.

*A Treatise on Diet: with a View to establish, on practical grounds, a System of Rules, for the Prevention and Cure of the Diseases incident to a Disordered State of the Digestive Functions.* By J. A. PARIS, M.D. F.R.S. Fellow of the Royal College of Physicians, &c. &c.—8vo. pp. 307. London: T. and G. Underwood. 1826.

"Some physiologists will have it that the stomach is a mill,—others that it is a fermenting vat, others, again, that it is a stew-pan;—but, in my view of the matter, it is neither a mill, a fermenting vat, nor a stew-pan—but a STOMACH, gentlemen, a STOMACH."—*Manuscript Note from Hunter's Lectures.*

NOTHING can be more certain than that the discrepancy of opinion which so frequently obtains amongst physicians, upon the most trifling subjects connected with their art, tends very effectually to strengthen the scepticism of the public, both with regard to the rationality of their doctrines and the efficacy of their remedies. We meet with a very striking illustration of the uncertainty of medical opinion, in the conflicting doctrines which have been, and are, maintained upon the subject of dietetics. Notwithstanding the labours that have been expended upon the subject, much must yet be effected before we can claim the confidence which is to be gained only by unanimity. Our author, then, approaches a subject which, however frequently considered, is by no means exhausted; and it is but a fair tribute to his acknowledged ability to consider him fully equal to the task he has undertaken. The very motto he has selected relieved us from the apprehension of having to contend with still another hypothesis of the precise manner in which the stomach performs its functions, with fanciful similarities between the process of digestion and some chemical or mechanical operation.

Dr. PARIS does not assert that we possess no works of merit upon the subject of Dietetics: the valuable treatise of Dr. FORDYCE would alone be sufficient to repel the charge. But, since the period in which that and other able works were published, physiology, as well as chemistry, has advanced with rapid strides; "pathology has thrown off the mystic veil with which the humoral doctrine had invested her, and the views, as well as the language of medical science, have undergone corresponding revolutions. Facts alone remain unchanged; but those are so buried in the ruins of the fallen fabric, that, unless they be rescued from the confused mass, their intrinsic value must be entirely lost:

any work, therefore, carefully collated, with the view of accomplishing such an object, even should it present but little novelty, must prove an acceptable offering to the intelligent part of the community."

We agree with Dr. Paris, that every author is conventionally allowed to state the theme of his discussion in his own language; but really the formal introduction of a detailed "Anatomical View of the Digestive Organs," and the "Physiological History of Digestion," which occupy one of the three parts which constitute the volume, was not called for. The suspicion the author himself entertains upon this subject, is doubtless correct: "The relation of a tale which has been so often told may, perhaps, appear to many as not only superfluous, but reprehensible." The custom of the present day, of prefacing the consideration of the diseases or derangements of a particular part by its anatomical and physiological description, would, in our opinion, be "more honoured in the breach than the observance." The professional reader, at least, is not supposed to require such elementary instruction; and the unnecessary repetitions to which the adoption of such a plan must unavoidably give rise, would alone induce us to complain of its adoption. We pass over the first part, then, not that we deny its importance, but because we may fairly presume our readers to be acquainted with the subjects upon which it treats; and that it would be an act of supererogation on our parts to give a lecture upon "the complicated machinery by which nature extracts blood from food."

The second part of the volume is occupied by the discussion of many important subjects connected with the "*materia alimentaria*." Although, says our author, it is true that those bodies which have possessed life can alone be strictly considered as affording aliment to animals, yet there are many inorganic substances, as water, salt, lime, &c. which, although incapable by themselves of nourishing, appear, when administered in conjunction with the former, to contribute essentially to nutrition. "The consideration, therefore, of the *materia alimentaria* necessarily embraces not only the substantive agents above stated, but those which, from their *modus operandi*, are entitled to the distinctive appellation of alimentary *adjectives*. Under the former division will be arranged all the varieties of animal and vegetable food: under the latter, the class of condiments will merit our attention." (P. 90.)

As every description of food, whether derived from the animal or vegetable kingdom, is converted into blood, it may

be inferred that the ultimate effect of all aliments must be virtually the same. The several species differ only from each other in the quantity of nutriment they afford,—in the comparative degree of stimulus they impart to the organs through which they pass,—and in the proportion of vital energy they require for their assimilation.

“ Were the degree of excitement which attends the digestion of a meal commensurate with the labour imposed upon the organs which perform it, less irritation and heat would attend the digestion of animal than of vegetable food; for, in the one case, the aliment already possesses a composition analogous to that of the structure which it is designed to supply, and requires little more than division and depuration; whereas, in the other, a complicated series of decompositions and recompositions must be effected before the matter can be animalised, or assimilated to the body. But the *digestive fever*, if we may be allowed the use of that expression, and the complexity of the alimentary changes, would appear, in every case, to bear an inverse relation to each other. This must depend upon the fact of animal food affording a more highly animalised chyle, or a greater proportion of that principle which is essentially nutritive, as well as upon the immediate stimulus which the alimentary nerves receive from its contact. In hot countries, therefore, or during the heats of summer, we are instinctively led to prefer vegetable food; and we accordingly find that the inhabitants of tropical climates select a diet of this description: the Bramins in India, and the people of the Canary Islands, Brazils, &c. live almost entirely on herbage, grains, and roots; while those of the north use little besides animal food. On account of the superior nutritive power of animal matter, it is equally evident that the degree of bodily exertion, or exercise, sustained by an individual, should not be overlooked in an attempt to adjust the proportion in which animal and vegetable food should be mixed. Persons of sedentary habits are oppressed, and ultimately become diseased, from the excess of nutriment which a full diet of animal food will occasion: such a condition, by some process not understood, is best corrected by acescent vegetables. It is well known that artisans and labourers, in the confined manufactories of large towns, suffer prodigiously in their health whenever a failure occurs in the crops of common fruits: this fact was remarkably striking in the years 1804 and 1805. Young children\* and growing youths generally thrive upon a generous diet of animal food: the excess of nutritive matter is consumed in the development of the body, and, if properly digested, imparts strength without repletion. Adults and old persons comparatively require but a small proportion of aliment, unless the nutritive

\* “ The aliment of almost every animal, in its first stage of life, is composed of animal matter: even granivorous birds are nourished by the yolk for several days after being hatched.”

movement be accelerated by violent exercise and hard labour." (P. 93.)

The exclusive value of animal food has sometimes been urged, and the utility of its admixture with vegetable matter has been denied; while, to support the proposition, reference has been made to the "rude health and herculean strength of our hardy ancestors." But, although it would appear that the British aborigines were not conversant with the cultivation of the ground, and that they subsisted chiefly on flesh and milk, before any valid conclusion can be drawn from this circumstance, the habits of the people must be compared with those of their descendants.

"We learn from the London Bills, that scurvy raged to such an excess in the seventeenth century, as to have occasioned a very great mortality: at this period the art of gardening had not long been introduced. It appears that the most common articles of the kitchen garden, such as cabbages, were not cultivated in England until the reign of Catharine of Arragon: indeed, we are told that this queen could not procure a salad, until a gardener was sent for from the Netherlands to raise it. Since the change thus happily introduced into our diet, the ravages of the scurvy are unknown.

"It follows, then, that in our climate a diet of animal food cannot, with safety, be exclusively employed. It is too highly stimulant; the springs of life are urged on too fast, and disease necessarily follows. There may, nevertheless, exist certain states of the system which require such a preternatural stimulus; and the physician may therefore confine his patient to an animal regimen, with as much propriety as he would prescribe opium or any other remedy. By a parity of reasoning, the exclusive use of vegetable food may be shown to be inconsistent with the acknowledged principles of dietetics, and to be incapable of conveying a nourishment sufficiently stimulating for the active exertions which belong to our present civilised condition. At the same time it must be allowed, that an adherence to vegetable diet is usually productive of far less evil than that which follows the use of an exclusively animal regimen." (P. 95.)

No sooner had it been demonstrated by the science of chemistry that azote was an essential element of the animal body, and exists in it more abundantly than in plants, than it became a subject of investigation to determine from whence that element was derived: whether from the atmosphere by the process of respiration or absorption, or both; from the action of life itself; or from different articles of food. The experiments which are well known to have been instituted by the indefatigable MAGENDIE, and the conclusion derived from them,—namely, that the azote of the organs is produced

by the food, and consequently that no substance which does not contain this principle can support life, are not deemed satisfactory by Dr. Paris, who thus discusses the question :

" Now, giving all due credit to the accuracy and good faith with which these experiments were performed, what do their results show? That the azot of the organs is produced by the food, says M. Magendie, and consequently that no substance which does not contain this principle can support life. By no means: they merely prove that an animal cannot be supported by highly-concentrated aliment. In contradiction to the theory of Magendie, we know that sugar is highly nutritive, provided it be properly mixed with a quantity of substantial viands. It is certain that, in the process of making hay, if well performed, it will be found that the nutritive matter is greatly increased by the partial conversion of the cruder mucilaginous sap into a substance analogous to sugar; as we find that animals thrive faster with this food, and prefer it to that which is left on the ground, and found in a state of self-made hay. Horses fed on concentrated aliment are invariably liable to various diseases, originating from diseased action in the stomach; and hence arise broken wind, as it is termed, staggers, blindness, &c. The intolerable fetid odour of sulphuretted hydrogen gas, perceptible when post-horses are fed with oats and beans only, cannot have escaped observation; and it affords sufficient proof of the mischief which arises from a too-concentrated diet. The same remark applies to men; and I shall have occasion to show hereafter that the use of chocolate, butter, cream, sugar, and rich sauces, without a due admixture of bread, potatoes, and other less nutritive aliments, is invariably attended with disordered digestion. Unless the taste be vitiated by habit, there exists an instinctive aversion to such food.

—— ' The prudent taste  
Rejects, like bane, such loathsome lusciousness.'

The Kamtschadales are frequently compelled to live on fish-oil, but they judiciously form it into a paste with saw-dust, or the rasped fibres of indigenous plants." (P. 99.)

It is a curious fact, that most of the animals fed by Magendie on *non-azotised* substances, exhibited before death an ulcer in the cornea. The membrane was in some instances destroyed, and the humors of the eye escaped.

There is as much variety in the arrangement of the different articles of food to which we look for support, as in the host of diseases which lead to our destruction; and perhaps all the classifications which have been proposed have been erected upon equally arbitrary foundations. Every author views the subject in a manner peculiar to the notions he has preconceived. The mere arrangement, perhaps, is not a

matter of importance; "for, however greatly the roads of our pursuit may vary, we must ultimately arrive at the same goal,"—provided there be any truth in our dietetic researches, or any natural affinity between the objects of our classification. With regard to the nature of these proximate principles of organic matter, upon the presence of which the nutritive qualities depend, Chemistry has satisfactorily demonstrated them to be *fibrin, albumen, gelatin, oil and fat, gluten, fecula, or starch mucilage, sugar, acids, &c.*

The author considers it necessary "to caution the reader against the popular error, of regarding the terms digestible and nutritive as synonymous and convertible. A substance may be highly nutritive, and yet be digested with difficulty: that is to say, it may require all the powers of the digestive organs to convert it into chyle, and yet, when so converted, it may afford a principle of highly-restorative energy: this is the case with some of the fatty and oily aliments. On the contrary, there are substances which apparently pass out of the stomach with sufficient readiness, but afford but little comparative support to the body."

It is very correctly stated, that, if we infer the degree of digestibility of a substance by its known solubility out of the stomach, we shall fall into many errors. Such, however, has been the mode of reasoning adopted by some inquirers into the subject, and hence the fallacious inferences that have been deduced by them. GOSSE, of Geneva, for instance, confounds solubility with digestibility, which in itself is sufficient to invalidate his reasoning.

"The healthy stomach disposes most readily and effectually of solid food, of a certain specific degree of density, which may be termed its *digestive texture*: if it exceed this, it will require a greater length of time, and more active powers, to complete its chymification; and, if it approaches too nearly to a gelatinous condition, the stomach will be equally impeded in its operations. It is, perhaps, not possible to appreciate or express the exact degree of firmness which will confer the highest order of digestibility upon food: indeed, this zero may vary in different individuals; but we are taught by experience that no meat is so digestible as tender mutton: when well conditioned, it appears to possess that degree of consistence which is most congenial to the stomach; and in this country it is perhaps more universally used than any other animal food. Wedder mutton, or the flesh of the castrated animal, is in perfection at five years, and is by far the sweetest and most digestible; ewe mutton is best at two years' old. Beef appears to be not so easy of digestion; its texture is firmer, but it is equally nutritive. Much, however, will depend



upon the period which has elapsed since the death of the animal, and more upon the method of cookery. In short, it would be worse than useless to attempt the construction of any scale to represent the nutritive and digestive qualities of the different species of food: the observations here introduced are merely noticed for the sake of illustrating those general principles, whose application can alone afford us any rational theory of diet.

“It will not be difficult to understand why a certain texture and coherence of the aliment should confer upon it digestibility, or otherwise. Its conversion into chyme is effected by the solvent power of the gastric juice, aided by the *churning* which it undergoes by the motions of the stomach; and, unless the substance introduced possess a suitable degree of firmness, it will not yield to such motions. This is the case with soups and other liquid aliments: in such cases, therefore, nature removes the watery part before digestion can be carried forward. It is on this account that oils are digested with so much difficulty; and it is probable that jellies and other glutinous matters, although containing the elements of nourishment in the highest state of concentration, are not digested without considerable difficulty: in the first place, on account of their evading the grappling powers of the stomach; and in the next, in consequence of their tenacity opposing the absorption of their more fluid parts. For these reasons I maintain, that the addition of isinglass, and other glutinous matter, to animal broths, with a view to render them more nutritive to invalids, is a pernicious custom.” (P. 103.)

It is well known that the texture of food will vary according to the wild or domesticated state of the animal: that of the former is more dense, although highly nutritive. The flesh of the female is more delicate than that of the entire male. It is generally believed that the flavour of the female is improved by removing the ovaries, or *spaying* them. Every day the testes are permitted to remain, even though totally inactive with regard to their proper function, is injurious to the delicacy of the veal of the bull-calf; and an animal which is not castrated until after puberty, always retains much of the coarseness of the entire male. The quality of the meat is also affected by the mode of killing the animal. Hunted animals, and those which die a lingering death, are particularly tender: hence the custom of gradually bleeding calves to death, as practised in this country; of whipping pigs to death, as said to be done by the Germans; of baiting bulls, &c. The action of vinegar given to an animal some hours before killing it, “is also known to be capable of rendering its flesh less tough. It is a common practice in the country to give a spoonful of this acid to

poultry, when they are intended for the immediate service of the table." We never heard of this mode of obviating the toughness of recently killed poultry, but shall certainly not fail to recommend its adoption to our country friends. Incipient putrefaction tends most effectually to lessen the rigidity of the animal fibre.

The modifying powers of cookery, however, which our author next proceeds to examine, are infinitely more capable of influencing the texture of our food, and consequently its degree of digestibility, than any of the circumstances just mentioned. "By cookery, alimentary substances undergo a twofold change: their principles are *chemically* modified, and their textures *mechanically* changed. The extent and nature, however, of these changes will greatly depend upon the manner in which heat has been applied to them; and if we inquire into the culinary history of different countries, we shall trace its connexion with the fuel most accessible to them. This fact readily explains the prevalence of the peculiar species of cookery which distinguishes the French table, and which has no reference, as some have imagined, to the dietetic theory, or superior refinement, of the inhabitants." (P. 106.)

We confess we doubt the correctness of this explanation of the peculiar cookery of different countries, and should have been gratified by the mention of the sources from whence the opinion has been derived. The observations of Dr. Paris upon the different modes of preparing food for the table, may not be marked by much novelty, but they are certainly worthy the attention of every practitioner.

"*Boiling*.—By this operation the principles not properly soluble are rendered softer, more pulpy, and consequently easier of digestion; but the meat, at the same time, is deprived of some of its nutritive properties, by the removal of a portion of its soluble constituents: the albumen and gelatin are also acted upon; the former being solidified, and the latter converted into a gelatinous substance. If, therefore, our meat be boiled too long or too fast, we shall obtain, where the albumen predominates, as in beef, a hard and indigestible mass, like an overboiled egg; or, where the gelatin predominates, as in young meats, such as veal, a gelatinous substance, equally injurious to the digestive organs. Young and viscid food, therefore, as veal, chickens, &c. are more wholesome when roasted than when boiled, and are easier digested. Dr. Prout has very justly remarked, that the boiling temperature is too high for a great many of the processes of cooking, and that a lower temperature and a greater time, or a species of infusion, are better adapted for most of them. This is notorious with sub-

stances intended to be stewed, which, even in cookery-books, are directed to be boiled slowly, (that is, not at all,) and for a considerable time. The ignorance and prejudice existing on these points is very great, and combated with difficulty; yet, when we take into account their importance, and how intimately they are connected with health, they will be found to deserve no small share of our attention.\* The loss occasioned by boiling partly depends upon the melting of the fat, but chiefly from the solution of the gelatine and osmazone: mutton generally loses about one-fifth, and beef about one-fourth, of its original weight. Boiling is particularly applicable to vegetables, rendering them more soluble in the stomach, and depriving them of a considerable quantity of air, so injurious to weak stomachs. But, even in this case, the operation may be carried to an injurious extent: thus, potatoes are frequently boiled to the state of a dry, insipid powder, instead of being preserved in that state in which the parts of which they are composed are rendered soft and gelatinous, so as to retain their shape, yet be very easily separated. On the other hand, the cabbage tribe and carrots are frequently not boiled long enough, in which state they are highly indigestible. In conducting this process, it is necessary to pay some attention to the quality of the water employed: thus, mutton boiled in hard water is more tender and juicy than when soft water is used; while vegetables, on the contrary, are rendered harder and less digestible when boiled in hard water.

*Roasting.*—By this process the fibrine is corrugated, the albumen coagulated, the fat liquefied, and the water evaporated. As the operation proceeds, the surface becomes first brown, and then scorched; and the tendinous parts are rendered softer and gluey. Care should always be taken that the meat should not be over-done, nor ought it to be under-dressed; for, although in such a state it may contain more nutriment, yet it will be less digestible, on account of the density of its texture. This fact has been satisfactorily proved by the experiments of Spallanzani; and Mr. Hunter observes, that ‘boiled, and roasted, and even putrid meat, is easier of digestion than raw.’ Animal matter loses more by roasting than by boiling: it has been stated above, that by this latter process mutton loses one-fifth, and beef one-fourth; but by roasting, these meats lose about one-third of their weight. In roasting, the loss arises from the melting out of the fat, and the evaporating of the water; but the nutritious matter remains condensed in the cooked solid; whereas, in boiling, the gelatine is partly abstracted. Roast are, therefore, more nutritive than boiled meats.†

*Frying.*—This process is, perhaps, the most objectionable of

\* “Hence it is that beef-tea and mutton-tea are much more calculated for invalids than the broths of these meats.

† “It has been computed that, from the dissipation of the nutritive juices by boiling, one pound of roasted contains as much nourishment as two of boiled meat.

all the culinary operations. The heat is applied through the medium of boiling oil, or fat, which is rendered empyreumatic, and therefore extremely liable to disagree with the stomach.

*"Broiling."*—By this operation, the sudden browning or hardening of the surface prevents the evaporation of the juices of the meat, which imparts a peculiar tenderness to it. It is the form selected, as the most eligible, by those who seek to invigorate themselves by the art of *training*.

*"Baking."*—The peculiarity of this process depends upon the substance being heated in a confined space, which does not permit the escape of the fumes arising from it: the meat is, therefore, from the retention of its juices, rendered more sapid and tender. But baked meats are not so easily digested, on account of the greater retention of their oils, which are, moreover, in an empyreumatic state. Such dishes accordingly require the stimulus of various condiments, to increase the digestive powers of the stomach." (P. 106.)

(To be continued.)

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*Practical Observations in Surgery: more particularly as regards the Naval and Military Service. Illustrated by Cases, and various Official Documents.* Second Edition, considerably enlarged. By ALEX. COPLAND HUTCHISON, late Surgeon to the Royal Naval Hospital at Deal; Member of the Medical and Chirurgical Society of London; Corresponding Member of la Société Médicale d'Emulation of Paris; senior Surgeon to the Westminster General Dispensary; Consulting Surgeon to the Royal Metropolitan Infirmary for the Diseases of Children; Surgeon to his Majesty's Dock-yard at Sheerness, and to his Royal Highness the Duke of Clarence, &c.—8vo. pp. 432. London: T. and G. Underwood. 1826.

THIS publication belongs to a class of works which we hold in much estimation. It is one of real practical utility, containing the experience of a gentleman actively engaged in the public service, as a naval surgeon, during the late war. It is true that the greater portion of this volume has appeared before, under a different title, or in successive Numbers of this and other Journals; but, as these papers are all united in this edition, and many new observations are added, we do not hesitate to recommend its perusal generally to the profession, but more especially so to those young gentlemen who intend to devote themselves to the medical department either of the naval or military service. It is our intention, in the present article, to draw our readers' attention to those points in the volume which strike us as being most useful, and especially to those which appear in print now for the first time.

The first chapter contains remarks on *Amputation*, occupying about 110 pages, and including all the most important circumstances connected with that operation, either prior to its performance, or in the subsequent treatment of the stump. Part of the chapter is controversial, and turns upon the often disputed point as to the period most proper for amputation in gun-shot wounds. It is not our intention to enter into this discussion: dispute, we will not call it, since there cannot, we conceive, be two opinions as to the propriety of immediate amputation in *almost* every case of this sort. In fact, there is no difference of opinion on the subject; since those who believe that it is necessary to wait until the shock received by the constitution has been recovered, are ready to acknowledge that this shock is neither a constant nor a general occurrence; and we are quite convinced that in this light only was the matter viewed by Mr. GUTHRIE, the surgeon referred to. Mr. HUTCHISON is a strenuous advocate for immediate amputation, and he backs his opinion by the reports of the surgeons of the ships employed in the bombardment of Algiers, as well as by the strong evidence of many naval surgeons in previous engagements: and certainly they do confirm that opinion most satisfactorily; at the same time they prove that the *shock* so much talked about, although it does now and then occur, is a very rare event, and, even when it takes place, by no means implies the necessity of a lengthened delay. Stimuli may be necessary to produce a reaction in the system, but when that is accomplished, the sooner the amputation is performed the better: nay, there is some evidence to show that, where this reaction could not be produced, the immediate removal of the shattered limb has been followed by the best effects.

The modes of performing the operation and dressing the stump, together with the after-treatment of the patient, come next; and, if there be not very much of novelty in what our author urges upon these points, at least his doctrines are the best that can be offered, and they cannot be too strongly impressed upon the juniors of the profession.

Speaking of the application of the tourniquet, he objects to the size of the pad commonly employed: that which he uses is not thicker than the finger, and this he lays obliquely over the vessel, to preclude the possibility of its being displaced by any direction that it may be found necessary to give to the limb during the operation. The pad is prepared by taking a few turns with a bandage about a rounded piece of deal, of the thickness of a goose-quill, and about one inch and a half in length. The pad should be stitched, to

prevent any embarrassment from its unrolling during the application. A principal objection, says our author, to the placing of a large pad over the artery, is that the surface being so much elevated above the circumference of the thigh, a considerable angular space will be left slightly, or not at all, compressed by the circular band of the tourniquet, however closely the instrument may be screwed.

Respecting the operation itself, he says—

“As soon as the bone is cut through, and before the retractors are removed, I make it an invariable rule, whether there be any occasion to use the bone-nippers or not, to take off the asperities, and scrape, or endeavour somewhat to round, the sharp cut edge of the bone with a strong blunt scalpel, in order to prevent the soft parts from being injured, when brought over the end of the bone in forming the stump; which is very apt to happen by the pressure of the adhesive straps and bandage, in doing up the limb. This precaution will be found to be doubly necessary when the amputation is below the knee, owing to the thinness of the integuments covering the ridge of the tibia. Mr. Hey, of Leeds, in this latter case, recommends the *filing* down the ridge of that bone; and military surgeons have been in the practice, of late years, of sawing off a considerable portion of the upper ridge of the tibia after amputation; but I have found nothing more necessary than what has been described above.” (P. 74.)

The following directions in dressing the stump are too practically valuable to be omitted:

“In cases where amputation has been performed on one of the great extremities, I never suffer it to be opened, or the dressings removed, before the fifth, and more generally the sixth day, excepting where much tension and inflammation supervene, or an unusual secretion of pus takes place, and is retained by the too close application of the adhesive straps. In the latter case, the outer dressings are removed, and one or two of the straps snipped with a pair of scissors over the incised line, carefully avoiding the ligatures, to permit a free exit of the contained matter: the stump is then closed up as before; but the following day I make it an invariable rule to remove the whole of the dressings.

“The tension and inflammation resulting from amputation, are best combated by the application of emollient cataplasms to the face of the stump, laid over the adhesive plasters, previously relaxed a little, and renewed every two or three hours; or fomentations may be used. If the inflammation has communicated itself to the integuments of the stump upwards, cold, astringent, and evaporating lotions will generally be found the most suitable remedies.” (P. 86.)

“The manner of removing the straps of sticking-plaster, too, is, in my opinion, of much consequence to be attended to, especially

in the first few dressings; for, if great care be not taken, the slight and newly-formed adhesions may be torn asunder: if, for instance, the strap be stripped off by holding one end at nearly a right angle with the adhering part, the flap will be raised up with it, and thus a separation of the newly united parts be produced.

"My plan is, to reflect the raised end of the strap close down upon the adhering part, and to bring it gently forward with one hand, whilst the removing part of the strap is followed by two fingers of the other, placed upon the skin, which will effectually prevent the occurrence of such an accident; and, when one end is detached from its adhesions, as far as the line of incision on the face of the stump, in like manner the other end is brought down, and the strap wholly removed.

"When the flaps are brought together, and all the straps applied that are deemed necessary to retain them in apposition, I place upon the under flap a thin compress of lint, enveloped in a piece of simple dressing, with the ointment side outwards, (to admit of the more easy removal of the circular strap:) over this a broad circular strap, snipped at the outer edge, to make it apply more closely, is passed, and carried upwards round the member, leaving the cross angles of the stump projecting beyond it. Two smaller straps of sticking-plaster are also passed obliquely over all, crossing them on the face of stump, that the sides of the flaps may be thus kept in closer contact, and thereby union between the inner surfaces more certainly promoted." (P. 88.)

In illustration of the various positions advocated in this chapter, several cases are subjoined, the last of which is that of an African, on whom amputation of the foot, at the tarso-metatarsal articulation, took place. This case is too long for insertion, but we mention it for two reasons: first, because, whenever such an operation is feasible, it enables the patient afterwards to walk with tolerable facility; and, secondly, on account of the following valuable caution:—"I am, notwithstanding, inclined to think that, however successfully we may perform this important operation in England, we should pause before we recommend its adoption in tropical climates; as, from the unavoidable delay of completing the operation, the number of nerves, tendons, and tendinous expansions, that must necessarily be divided with the knife, and the very considerable pain thereby excited, it would, in such situations, be likely to be followed by tetanus." (P. 107.)

The second chapter treats of *Erysipelatous Inflammation*, a disease very common in the naval service, and for the cure of which, Mr. Hutchison some years ago recommended free incisions to be made upon the inflamed part, through the skin and down to the muscles; avoiding, of course, any large veins or blood-vessels that might be in

the way. It will not be necessary to make many remarks on this chapter: the mode of cure advocated by Mr. Hutchison has been before the profession long enough to enable surgeons to form a just estimate of its applicability; and we find an able writer, Mr. COOPER, in the *last* edition of his "Dictionary of Surgery," (not in the *second*, as asserted by our author,) reprehending this practice in no very qualified terms. For our own parts, we conceive that Mr. Hutchison might have altered this chapter advantageously, by explaining more precisely the kind of case in which these incisions are most advisable and productive of real advantage. He says, at page 112, "The epidermis, or rete mucosum, has been supposed by some writers to be the particular seat of erysipelas, whilst others confine its morbid action alone to the cellular substance, and a third class to both these parts. My own observation, however, has afforded me convincing proofs that, in the species of the disease now under consideration, its active and destructive influence will be found more especially directed to the skin, and the reticular or condensed cellular substance forming the aponeurosis of the muscles, &c."

It is in those cases where the aponeuroses of muscles are more especially affected, that we conceive the plan of making free incisions to be attended with the greatest benefit; but we are not prepared to extend the practice as far as our author has done.

With these remarks, we pass on to the third chapter, containing observations on *Simulated or Feigned Diseases*. The greater portion of this chapter has been published in two successive Numbers of this Journal, and therefore we need not detain our readers, nor extend this article, by statements with which they must still be familiar; but we may be permitted strongly to recommend the perusal of this part of the work to all beginners, either in the naval or military service, since it will undoubtedly save them from many difficulties and embarrassments, to which all surgeons in the public service are exposed, from the numerous impositions attempted to be practised upon them. In this instance, our author has indeed turned his experience to very good account, and conferred an essential benefit on his medical brethren.

We pass over the following chapter, on *Hospital Gangrene* and *Common Ulcer*, in order to give a more extended account of Chapter Vth, on *Imperforate Anus*. The subject is very interesting, and the paper itself, although read at one of the meetings of the Medico-Chirurgical Society, is presented to the public for the first time.

After noticing the paucity of information on this subject,



contained in the surgical writings of former ages, our author recommends a careful examination of every infant upon its birth, by the accoucheur; and, in the event of imperforate anus being discovered, the surgeon ought not, he observes, to operate until the expiration of from twenty-four to sixty hours, though it may be done afterwards with perfect safety, as well as with a prospect of success. A certain degree of distention of the gut is, in fact, necessary to ensure a favourable result. It is important to ascertain, if possible, the distance of the gut from the surface. If the usual hollow between the nates exists, and the situation of the anus is marked by a depression, our author believes the intestine will be found proportionably near, and vice versâ: he is also inclined to think that, where neither mark nor hollow exists, the sphincter ani is wanting. There is also another mode of coming to a just conclusion on this point, which is by tickling the natural situation of the anus with the point of the finger: the infant will then strain, as if to force out the contents, and a protrusion of the part will be the consequence; unless, indeed, it terminates very high up.

The operation necessary for the removal of this malformation is thus described:

“The infant should be placed upon a table, close to its edge, and having its legs and thighs kept up by an assistant, nearly in the same manner as in the lateral operation for the stone; and, if the child be a female, it may be an advantage to pass a director up the vagina, as recommended by Mr. Mantell, of Dover, which will be a guide to the operator, and lessen the chance of his wounding either the vagina or uterus. The surgeon, sitting on a chair before the patient, or with his right knee upon the floor, should make an incision, with a small double-edged scalpel, nearly an inch and a half in length, in the direction of the raphe, provided the gut intended to be cut into be supposed to be at some distance, and immediately upon the situation of the natural anus; taking care to cut upwards and backwards, towards the hollow of the sacrum, lest the bladder of the male or uterus of the female be injured by the instrument, the fore-finger of the left hand being occasionally introduced into the wound, as a further guide to the direction of the incision; and if, after having cut to the depth of about an inch and a half with the scalpel, which will be as deep as can be done with safety with this instrument, there be no appearance of meconium, we should then lay aside the scalpel, and recommend the introduction of the point of a middle-sized common trocar to the bottom of such incision.

“This instrument should be then pushed gently upwards and backwards, inclining rather to the left of the hollow of the sacrum and natural descent of the rectum, as far as the surgeon thinks it

prudent, or until he imagines, from a want of resistance to the force employed, that he has penetrated the gut: at the same time that pressure downwards be made by the hand placed upon the abdomen; when the stilette is to be withdrawn, and the contents of the bowel may, possibly, flow through the canula. If, however, on withdrawing the stilette, the surgeon finds he has been deceived, and that no meconium follows its removal, the latter instrument must be reintroduced through the canula, and the triangular point of the instrument forced further upwards, in the direction before stated, as far as will be consistent with safety. The stilette is now again to be withdrawn, when most probably the meconium will follow it.

"This being effected, and the intestine emptied, I should recommend the canula to be retained in the parts for the first two or three days, securing it in its situation by tapes and a napkin, taking care to direct the nurse, in removing the latter, not to disturb this instrument: for I am strongly inclined to believe that many instances of failure in this operation have arisen from not attending to this circumstance, and not preserving a continuity for the excretions between the punctured gut and the external parts, for a sufficient length of time." (P. 259.)

In the event of the instrument not reaching the intestine, even when the surgeon has penetrated as deep as is consistent with prudence, Mr. Hutchison recommends that the surgeon should suggest to the parents of the infant the possibility of making an incision into the cœcum, or into the sigmoid flexure of the colon. That the surgeon may make such a proposal, and that he perhaps is bound to do so, we will not deny; yet what can be more horrible than the contemplation of life sustained by means of an opening so situated. For our own parts, we think that the child so saved would have little cause to be grateful to the operator.

Pursuing the description of the operation in the usual situation, however, our author says, "after the canula of the trochar has remained in the parts one or two days, I should recommend its removal, by passing through it the largest-sized hollow elastic bougie which the canula will admit, and then to withdraw the canula. After the lapse of some days, the hollow instruments may be laid aside, and a sponge-tent used." But our author thinks, after all, that the common bougie is the best, as it does not produce so much irritation as either sponge-tent or gentian-root. After the first fortnight, it will not be necessary to introduce it to so great a depth. At the end of a month, the instrument may be left off in the night; and, after another month, it may be kept in merely for an hour or two in the day. After the parts are

completely cicatrised, the introduction of any instrument might be injurious.

We must now pass over a considerable space, not because the matter is uninteresting, but it has already been before the public, and therefore cannot require either analysis or criticism. We pause, however, at page 387, on *Ununited Fractures*. Mr. Hutchison relates the case of a man who was admitted into Deal Hospital, with a fractured humerus: the accident had occurred sixteen weeks prior to his admission, but no union had taken place, and the arm was, from the contraction of the muscles, four inches shorter than that of the opposite side. An opportunity was here afforded for trying the effect of a seton passed between the ends of the fractured bones, and he thus describes the operation, and its result:

"Foiled in every effort hitherto made to afford relief, a seton, consisting of several portions of silk, was now passed through a kind of cartilaginous substance intervening between the sides of the overlapping extremities of the fractured bone, by means of the needle recommended by Mr. Wardrop, but of somewhat smaller dimensions. This seton was occasionally moved, in the hope of exciting some degree of vascular action in the parts affected. Splints and proper bandages were applied, and the most perfect quiescence, with respect to the limb, sedulously enjoined. The wounds were dressed, and all offensive discharges carefully removed, every two or three days; regulating the intervals of this process according to the state of the discharge and the desire of the patient, but always so managed as not wholly to deprive the arm of the support afforded by the splints, &c.

"After persisting in this mode of treatment for about a month, we found ourselves under the painful necessity of withdrawing the seton altogether, from the supervening of a violent attack of erysipelas over the whole member. As soon as the erysipelatous inflammation had subsided, the two portions of bone were found consolidated to a certain extent, the arm only admitting of slight lateral motion at the fractured part; but none whatever in the opposite direction. Some weeks having elapsed, it was my earnest wish to have introduced the seton again; but no entreaties could prevail on the patient to submit. He was therefore invalided and discharged from the hospital; so much benefited as to enable him afterwards to pursue the occupation of a fisherman, in conjunction with his father, to whom he rendered himself extremely useful." (P. 388.)

Two cases of the *Taliacotian operation*; some remarks upon removing small *Antheromatous Tumors*; and a short Essay on *Necrosis*, conclude the volume.

*Observations on the Efficacy of White Mustard Seed, in Affections of the Liver, Internal Organs, and Nervous System; and on the General Management of Health and Life.* By CHARLES TURNER COOKE, Consulting and Operating Surgeon, at Cheltenham. Third Edition.—8vo. pp. 120. Gloucester, 1826.

WE have frequently been asked our opinion of the efficacy of white mustard seed, and, as many of our readers have probably been questioned about it, we have made Mr. COOKE's pamphlet a text on which to graft the very little which requires to be known on this subject.

If the statements contained in this pamphlet be true, then, indeed, may the physician exclaim, with Othello, that his "occupation's gone!" Let our readers peruse the following quotation, and they will perceive the universality of this new, or rather this newly revived, remedy:

"The white mustard seed is an almost certain remedy for all diseases connected with disordered functions of the stomach, liver, and bowels, and as such has been eminently successful in the following (among other) cases, viz.—in tendency of blood to the head, headache, weakness of the eyes and voice, and hoarseness; in asthma, shortness of breath, wheezing, cough, and other distressing affections of the chest; in indigestion, oppression after eating, heartburn, sickness, wind and spasms, cramp, and other uneasy affections of the stomach; in debility, uneasiness, pain and sense of tenderness and soreness in the interior, and particularly at the pit of the stomach, and in pain in the sides and lower part of the body; in scanty and redundant flow of bile, in obstructions that may lead to scirrhus liver, torpor, and other morbid affections of that organ; in deficient perspiration, gravel, scanty and unhealthy state of the urine, and other disorders of the skin and kidneys; in relaxed and irritable bowels, flatulence, and occasional and habitual costiveness; in severe colds, rheumatism, lumbago, spasms and cramp in the body and limbs, partial and general dropsy, palsy, coldness and numbness of the limbs and feet, loss of appetite, failure of sleep, weakness of nerves, depression of spirits, and general debility of the system. In ague, gout, rheumatic fever, epilepsy, scrofula, scurvy, erysipelas or St. Anthony's fire,—in the dreadfully painful affection called tic douloureux,—and in recovery from the small-pox, typhous and scarlet fevers, and other severe disorders connected with a depraved state of the interior,—it has been taken with very considerable advantage. For the long round worms, and the small white ones also, it is incomparably the best remedy hitherto discovered; inasmuch as, both in children and grown-up persons, it not only destroys those reptiles, but, if persevered in long enough to restore the tone of the stomach and bowels, will prevent their recurrence in future." (P. 11.)

Now here is not only a pretty long list of diseases, but many of the most opposite character and tendency, all yielding to the powers of the white mustard seed; so that, whoever is possessed of a packet of this panacea, is in fact master of the whole materia medica. It is true, indeed, that the above passage is not written by a medical man: it is the preamble to a Mr. Turnor's statement of his own case, and is employed by Mr. Cooke, the *consulting and operating surgeon* at Cheltenham, as a kind of text to his work, and is very properly designated by that gentleman, a *simple* narration. We are further told by Mr. Turnor, that three doses of the mustard seed are to be taken in the day,—one *before* breakfast, the second *after* dinner, and the third either at bedtime or an hour before; but why one dose is proper before and the other after a meal, the deponent saith not. Further on, we find it insisted upon that each dose should contain such a quantity as to produce a complete and healthy evacuation of the bowels every day; an effect to which the patient ought to pay particular attention, and in securing which the whole art of exhibiting mustard seed consists.

It is not our intention to analyse this pamphlet: it is sufficient to say that it contains an account of the digestive organs and function, together with some of the diseases to which they are subject, all evidently addressed to the *occasional* reader; and these are backed by a number of anonymous letters, containing accounts of cures, very much in the style of publications which we meet with daily, in the newspapers, and at the corners of the streets.

With regard to the real utility of the mustard seed as an occasional remedy, we shall present our readers with two passages; one from Dr. PARIS's Essay on Diet, the other from Dr. SCUDAMORE's recent work.

“The seeds consist of fecula, mucilage, an acrid volatile oil, on which their virtues depend, and which, on standing, deposits a quantity of sulphur; a bland fixed oil, which considerably obtunds the acrimony of the former constituent, and an ammoniacal salt. The fixed and volatile oils may be obtained by expression, and, if the mixture be submitted to the action of alcohol, the latter will be dissolved, and be thus separated from the former. It has been lately discovered, by some experiments conducted in France, that, if the alcoholic solution be evaporated, a solid and crystallisable substance, distinguished by acid properties, may be obtained; and, as sulphur is said to enter into its composition, it has been termed ‘sulpho-sinapic acid.’ If the whole seeds be macerated in boiling water, we shall at first obtain an insipid mucilage,

which, like that of linseed, resides in the skin; but, if the maceration be long continued, the water will become impregnated with matter yielding the odour of sulphuretted hydrogen,—a sufficient proof that a portion of the volatile oil may be thus extracted; and it is probable that this process may even proceed more rapidly in the digestive canal. In administering them, however, as a remedy, we should be cautious to prevent their accumulation in the bowels. A patient, to whom I lately recommended their use, informed me that his evacuations became extremely offensive; so that it is not improbable that a portion of sulphuretted hydrogen may be disengaged during their passage. Their administration evidently requires caution. If any inflammatory irritation exists, they must prove injurious: where, however, there is a sluggish or deficient secretion of the alimentary juices, I have no doubt respecting their utility." (Dr. PARIS on Diet.)

"The use of white mustard is at present very popular, and, like all popular remedies, is employed too indiscriminately. Its medicinal power is not a new discovery. CULLEN, in his *Materia Medica*, vol. ii. p. 171, observes, "As much of the unbruised seeds as an ordinary table-spoon will contain does not prove heating to the stomach, but stimulates the intestinal canal, and commonly proves laxative." Entirely with a view to determine the nature of this article as a medicine, I made an examination of the seeds in their whole state. In a few days after being digested in cold water, they became much enlarged, and the water had powerfully the smell of sulphuretted hydrogen. Submitted to distillation in a common alembic with water, the portions of liquid which first came over possessed the taste of a weak infusion of malt, quite free from pungency. Digested in alcohol, they did not communicate strongly either smell or taste. Some seeds which had passed the alimentary canal were found to be much swollen, and had lost some of their pungency. It is evident from these results, that the seeds, by treatment with these agents, were acted upon with difficulty in their entire state.

"In the *Journal de Chemie Medicale, de Pharmacie, &c.* No. x. année 1<sup>re</sup>, MM. HENRY (fils) and GOROT have given an elaborate report of their chemical examination of the mustard-seed, of which the following is the substance:—The seeds yield by expression a fixed and volatile oil, and the latter may be separated from the former by digestion in alcohol. The alcoholic solution, when evaporated, affords a solid and crystallisable substance, possessing acid properties, to which the discoverers have given the name of sulpho-sinapic acid. Sulphur, it is stated, forms a constituent element of this peculiar acid.

"M. JULIA FONTENELLE, in the same *Journal*, (No. iii.) informs us that, from his researches, he is led to conclude that the mustard-seed owes all its medicinal powers to the volatile oil; for the extraction of which he recommends that the seeds should

be reduced to powder, and distilled with eight or ten parts of water.

"It may be considered, therefore, that the properties of the seeds become sufficiently extracted in the stomach and intestinal canal, to excite the mucous membrane to increased secretion, and also to influence the action of the nerves. They are found principally useful to those invalids who suffer from general deficiency of secretion in the intestinal canal, and from nervous langour. I do not conceive that they are so proper for persons of the inflammatory diathesis, and who become easily heated; and I should rather approve of them as an occasional than a constant remedy, for they are not a certain aperient, and I do not think it desirable to subject the canal constantly to this kind of stimulus. If the seeds accumulate very much, some inconvenience may be occasioned by their augmentation of bulk; and, if they be retained in the intestines, some further inconvenience may result from the disengagement of sulphuretted hydrogen." (Dr. SCUDAMORE *on the Stethoscope*, &c.)

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## COLLECTANEA.

*Floriferus, ut apes, in saltibus omnia libant,  
Omnia nos, iidem, depascimur aurea dicta.*

### PHYSIOLOGY.

#### *Digestion.*

DR. SMITH, of Philadelphia, has arrived at the following conclusions, as the result of numerous experiments on digestion:

1st. That there is no fluid secreted by the stomach, possessing the remarkable chemical properties attributed to the gastric juice, and consequently that chemical solution does not take place in that organ.

2d. That there is a neuro-electric, or an electro-animal principle, conveyed by the nerves of the stomach, and made to act upon its contents through the medium of its saline secretions, which possess sufficient animal properties to facilitate its transmission, and to aid the effect.

3d. That the aliment in the stomach thus undergoes what may be termed an animal decomposition, and, after being reduced to its elements, is recombined by the principle which controls the composition of animal matter, though not probably endued with any properties of life, till it enters the circulation.

4th. That a very considerable portion of the aliment is absorbed by the capillary veins of the stomach and intestines, and consequently conveyed through the vena portæ and the capillary system of the liver, in which route it undergoes still more important

changes, and becomes endued with some of the vital properties of the blood.

5th. That another portion is taken up by the lacteal absorbents, by which it is converted into chyle.

It may, perhaps, by some be thought presumptuous in me, (says Dr. S.) thus to attempt the refutation of opinions substantiated by numerous experiments. If any apology be necessary for the freedom which I have used in this discussion, I would observe, that, whenever a fact is brought forward, for whatever purpose it may have been employed by the discoverer, it at once becomes the property of the literary community, and may be used for any logical purposes. It is generally the case that experimenters, intent upon some preconceived hypothesis, take but a partial view of the relations which their results bear to the rest of the science. Although they contribute to the completion of the structure, by bringing together the materials which nature has dispersed through her works, the scientific arrangement of them is usually reserved for other hands. (*American Medical Rev.* No. 1.)

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#### PATHOLOGY.

*Observations on Cataract.* Read to the French Institute,  
by L. F. GONDRET, M.D.

That morbid change in the organ of sight, which consists in opacity of the crystalline lens or its capsule, and to which the name of cataract has been applied, belongs, both by its situation and by the causes which give rise to it, to the class of internal disorders. The remarkable want of success which has hitherto attended all attempts to remove it by medical treatment, has, however, universally transferred the management of it to the hands of the surgeon. It must be acknowledged, that the operations for the cure of this affection have, of late, attained a high degree of perfection, and that a proportionate number of striking cures has been the result. It could be wished, notwithstanding, that a combined practice might be directed against this malady, which frequently becomes the cause of one of the most trying infirmities of age, and occasionally is met with in the earliest periods of life.

The author, in treating epilepsy and mania by cauterisation of the head, had had occasion to notice a remarkable improvement in amaurosis and cataract, in cases in which they happened to coexist with the affection which formed the principal object of attention. The observation appeared perfectly admissible, for there is no more difficulty in conceiving the removal of the physical cause of amaurosis or cataract, than that of mania or epilepsy.

The result of the author's experience with respect to amaurosis, was laid before the Institute in a former paper, and the attention which that received encouraged him in the prosecution of the researches detailed in the communication now before us.

In seeking to apply to cataract the treatment which he had



adopted in chronic affections of the head, and in gutta serena, Dr. Gondret soon found that his facilities for experiment were much less considerable. The cases of amaurosis which presented themselves were numerous, because this affection is frequently abandoned as hopeless; but, operation being the generally received method of treatment in cataract, it was not till after long waiting that a few almost accidental opportunities occurred for the trial of a practice, which he conceived equally applicable to this as to other affections of the eyes or brain.

He carefully noticed the facts as they occurred, and waited until he had accumulated a number of analogous results, before he considered himself warranted in drawing any thing like a general conclusion.

The seat of the derangement was particularly favourable to these researches. The existence of cataract becomes obvious long before it has arrived at an advanced stage, and it is well known that surgeons generally wait to perform the operation for its cure, until the opacity of the lens and loss of vision are complete. Other internal affections are materially different. A direct examination cannot be made, and the diagnosis is necessarily less positive, being rather the result of induction than of the immediate evidence of the senses.

As a guard against the possibility of his too hasty admission of facts in support of his own views, Dr. Gondret made his observations in conjunction with several of his enlightened professional brethren, who would not have failed to warn him, had he been falling into error.

He took particular care not to be misled, by mistaking an apparent for a real cure, as is often unavoidably the case, where the practitioner too soon loses sight of his patient. He saw the necessity of continuing the observations as long as possible, and did so for months, and even years. We subjoin one case in illustration:

M. Pepin, aged fifty-nine, of a good constitution, but of rather a nervous temperament. After a forced march, in the year 1816, he was attacked with severe fever, accompanied by intense headache and delirium, and followed by a general swelling of the limbs. During his convalescence, he perceived, for the first time, a black speck, which seemed to dance between his right eye and the objects which he looked at. Six months after, a cloudiness, the precursor of cataract, presented itself in the left eye. In the winter of 1819-20, he experienced, during the space of a month, the most exquisite pain in the right temple: this was succeeded by inflammation of the left eye, which was relieved by leeches. In January 1822, the pains in the right temple returned with great severity, but ceased by the use of an opiate pill. In April, Pepin consulted Dr. Gondret. At this time he could see nothing with the left eye, in which the cataract had now existed four years. A grey spot in the centre of the crystalline lens indicated the commencement of cataract in the right eye also. He was unable to read, for more than a short time, without fatigue. The floating spots which he perceived with the right eye were become more numerous, the pupils were rather dilated, and the irides almost fixed.

Dr. G. considers that the malady with which Pepin had been attacked six years previously, as already mentioned, was the principal cause of the derangement of the visual organs: that the brain, in the first instance, becoming affected, an extension took place, producing—

1st. Numerous filaments, and approach to opacity of the crystalline, with feebleness of vision in the right eye.

2dly. Complete cataract of the left eye.

3dly. Pains in the right temple.

4thly. Inflammation of the right eye.

Continued application at the desk had, doubtless, favoured the progress of the complaint.

Guided by experience of the excellent effects of a local treatment in some of the several affections of the brain, even when congenital, Dr. G. was induced to propose to his patient cauterisation of the sinciput, as offering the most favourable chance of relief. He hoped to arrest the progress of the cataract in the right eye, and to render the parts more susceptible to the influence of other agents, which, whether local or general, might favour the restoration of the organ to its natural state.

On the 4th of April, the cauterisation was performed with ammoniacal pomade.

On the 22d of May, the cloud, which had seemed to cover the right crystalline was become less; vision was a little improved, but filaments still remained. An electric current, produced by a voltaic trough of thirty plates, was passed between the right supra-orbital nerve and the right eye. An immediate, but momentary, improvement of sight was the consequence: the nerves, however, continued to feel the shock till the following day.

June 1st.—The right eye was perfectly clear, and vision increasingly strong.

July.—The cloudiness of the right crystalline was returning, and vision was a little more obscure. The ulceration at the sinciput was merely superficial, and was reduced to scarcely the third of an inch in diameter. It was then extended and made deeper by another application of the pomade.

August.—No opacity of the right crystalline. The sight continues constantly good. The cataract in the left eye had changed from a dead white to a grey colour.

June, 1823.—The right eye is in its natural state, and vision is good. The left crystalline approaches more nearly to a greyish black, but that eye merely perceives the presence of light.

August, 1825.—The cure is permanent with respect to the right eye. The cataract in the left is scarcely visible, but vision on that side has made no progress.

(*Medico-Chirurgical Review*, July.)

### *Observations on the Nature and Importance of the habitual Perspiration of the Feet.*

The importance of healthful perspiration, and its suppression (from whatever cause), are subjects which have often engaged the notice of pathologists. M. LOBSTEIN, however, one of the medical professors at Strasburg, in a paper under the above title, in the *Journal Complementaire*, has confined his attention to the perspiration of the feet, and has entered considerably at large into its nature,—its influence in health and in disease,—the danger of its sudden suppression, and the most successful method of effecting its re-establishment.

The importance attached to it will appear from the following short account of his paper.

It is stated that the presence of this secretion, in those who are accustomed to it, appears to have great influence over the healthful performance of the various functions of the body; and its incautious suppression frequently gives origin to very obstinate and serious maladies. Our author knows of several individuals, in whom a cessation of this secretion was followed by great mischief.

They had previously enjoyed good health; and they did not again regain it until the perspiration was re-established.

M. Lobstein's experience has shown him that the perspiration of the feet is contagious and hereditary. Its contagious nature is proved by its being propagated by wearing the shoes or stockings of a person subject to it; and that it is hereditary, is evinced by its often occurring in all the members of the same family. He has observed, also, that the younger members of such a family have been affected with an unpleasant itching of the skin before the habit of perspiration was firmly established; but, no sooner had they arrived at the age of puberty, and the secretion become manifest, than these affections vanished. The same may be said with regard to certain hypochondriacal and hysterical symptoms; the health of the individual becoming perfectly changed, and remaining good so long as the secretion was properly supplied.

The following are the most common causes of this evacuation being arrested:—Exposure of the inferior extremities to cold or damp; fatigue; cold bathing; as well as the incautious use of astringent applications, such as alum, the oxides of lead, &c. It is affected also by the languid circulation of the lower extremities, incident to old age; and in this case it is sometimes accompanied by a chronic cough, with fetid expectoration. Under these circumstances the secretion will not return, and fatal dropsy usually supervenes.

If imprudently checked, various organs may be affected, and serious, even fatal, maladies induced. Its suppression has sometimes produced apoplexy, melancholy, loss of memory, deafness, toothache, loss of voice, pulmonary consumption, colic, diarrhoea, &c. Rheumatic affections, obstinate ulcers of the feet, with oedema, not unfrequently result.

We may here mention, *en passant*, that our author's observation has led him to remark, that the perspiration of the axillæ is analogous to that of the feet; and that its suppression is attended with similar results.

The next point to be considered, is the best method of restoring the secretion, when improperly or imprudently suppressed. Many modes of practice are mentioned, but the following are the principal:—The pediluvium, which is often of itself sufficient. To render its effect more certain, however, flour of mustard may be added, or some common salt. Another useful remedy is the vapour bath; or a dry bath, composed of hot ashes and warm sand, mixed with salt or malt. The leaves of alders or birch have sometimes been found useful. One other method remains to be noticed: it is wearing stockings made of oil-silk or ox's bladder. Those whose occupations expose them to cold or damp ought always to take proper precautions to preserve the secretion; and this may be done by wearing socks made of wool or felt. In some obstinate cases of suppression, horse-radish or sinapisms to the soles of the feet have been of great service: so also has

friction repeated twice a-day, with the application, between the toes, of an ointment composed of equal parts of spirits of harts-horn and mercurial ointment.

It has been questioned, whether or not it be safe to attempt the permanent removal of this unpleasant secretion. This is a subject deserving great attention. It has already been shown that it is of the utmost importance to the health of those with whom it has become habitual, and it has been stated that fatal effects have been produced by its suppression. But it is thought that these occurrences may be averted by a gentle and skilful mode of proceeding, and by carrying off the superabundant humour by some other channel of excretion,—as by the skin generally, by the bladder, or the intestines. With this view, small doses of neutral salts have been exhibited, with the saline mineral waters; and, in addition, the feet may be soaked in an infusion of sage, oak-leaves, rose-petals, and bark.

M. Lobstein does not deny that this plan may succeed in some cases, but he considers it highly injudicious to endeavour to cause a cessation of the perspiration, as it is better to endure the inconvenience, than run the risk of more important evils.

Four cases are given in illustration of the preceding observations: namely, one of violent asthma; another, of a troublesome affection of the stomach; a third, of pulmonary consumption; and a fourth, of violent headache; all of which were clearly deducible from an incautious suppression of this secretion. The third necessarily proved fatal; the other three were cured, so soon as the perspiration of the feet returned. (*Journal Complem.*)

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#### PRACTICAL MEDICINE.

*On the Use of the Oil of Turpentine, in a particular Condition of Fevers.* By Dr. GEORGE B. WOOD, Professor of Chemistry in the Philadelphia College of Pharmacy.

By those who believe in the specific nature of diseases, and in the specific action of remedies, it has always been considered an object of primary importance to ascertain, by repeated and accurate observation, to what precise symptom, or combination of symptoms, any particular medicinal agent is especially applicable. To a want of such discrimination, it is, I believe, generally attributable, that different physicians meet with such different success in the use of the same remedy in the same complaint; and he who discovers and introduces to the notice of the public a new medicine, or a new application of an old medicine, may frequently blame his own insufficient or inaccurate description of the precise circumstances under which he has found it useful, for the discredit into which it is so liable to fall with the rest of the profession.

The design of the present communication is to point out a certain condition of fever, in which the author believes he has found

the spirits of turpentine peculiarly beneficial. This remedy has long been used, with much advantage, in low forms of fever, as a simple stimulant; and it has recently been the fashion to prescribe it in cases accompanied with stomachic or peritoneal inflammation, —in the yellow and puerperal fevers, for example, as a counter-irritant. But, at present, attention is called to it in neither of these capacities.

It is well known to every physician of moderate experience, that, in our protracted remittents, the tongue, instead of cleaning itself gradually from the edges, occasionally throws off the fur at once in large flakes from its surface, which is left red, sore, and of an almost glassy smoothness, totally unlike the natural papillary structure. This appearance will, in almost every instance, be found the harbinger of convalescence, which, however, (as may readily be conceived from the condition in which the mucous lining of the stomach and bowels is left, must be slow,) and liable to occasional interruptions.

But sometimes a disposition may be observed in the tongue thus suddenly to throw off its fur; the operation may even have commenced, and proceeded to some extent, so that a considerable patch of smooth denuded surface may be presented, when suddenly the process ceases,—the tongue, if before moist, becomes perfectly dry, and a train of alarming symptoms sets in, which, if not speedily arrested, conduct the patient to almost certain death. I have repeatedly seen instances of the typhus mitior or nervous fever, in which a portion of loosened fur in the middle of the tongue had given me hopes that a favourable crisis was approaching, when the suspension of the clearing process, and the occurrence of a harsh aridity, have given me evidence that the force of disease was overcoming the efforts of nature, and my patient has sunk at the very moment of anticipated recovery. The symptoms which accompany, or immediately succeed, this unpleasant change, are tenderness and slight distention of the abdomen, dark and offensive stools, high-coloured urine, a dry and harsh skin, frequent and feeble pulse, wandering intellect, and an anxious, suffering expression of countenance.

Stimulation with carbonate of ammonia and wine-whey, the use of blisters, of opium, and purgatives, combined sometimes with *Serpentaria* and Peruvian bark, the malt liquors, and nourishing food,—remedies which my own studies had suggested, or which were recommended by physicians in consultation,—have often proved utterly ineffectual; and the occurrence of tympanitic abdomen, hiccough, and constant low delirium, has proved the immediate precursor of a fatal issue. In one instance, intense abdominal pain occurred toward the close of the disease, and all the symptoms of violent peritoneal inflammation were presented. Examination after death discovered the effusion of the intestinal contents into the cavity of the peritoneum, and one or more large ulcerated openings in the lower extremity of the ileum, plainly

indicated the passage through which they had escaped. The inflammation resulting from the presence of this foreign matter had given rise to effusion of coagulable lymph, which covered the external coat of the bowels, and had begun to produce adhesions.

On opening the ileum, its mucous surface was found ulcerated in many places, and the source of the mischief was thus clearly developed. As in this case the occurrence of unpleasant symptoms had been simultaneous with that abortive effort in the tongue, before noticed, to discharge its load, I was led to the supposition that this last appearance might be indicative of the commencement of the ulcerative process in the mucous surface of the intestine. The use of balsams and terebinthinate remedies has proved eminently serviceable in certain states of obstinate chronic diarrhœa and dysentery, in which there was reason to suspect ulceration of the bowels; and an obvious explanation of their operation was, that, by their immediate contact with the ulcerated surface, the morbid action was subdued, and the parts allowed to heal. It required no great exertion of ingenuity to transfer the same reasoning to the cases of fever which I have described, and, on the first opportunity which presented, I prescribed the spirits of turpentine, in the form of julep, in the usual dose of ten or fifteen drops, frequently repeated. The case in which it was given, I had considered almost hopeless; but twenty-four hours had not elapsed before a decided change for the better had occurred, and in a few days the patient was convalescent. The same result has been obtained in other cases of a similar nature, and at present I approach this complication of unpleasant symptoms, not indeed with an absolute certainty of success, but with the confidence which an experience, generally successful, inspires. It is true that I seldom trust the cure to the spirits of turpentine alone, but make use of whatever auxiliary measures the symptoms appear to demand. To this remedy, however, the chief credit is, I think, undoubtedly due; for, before its employment, the best plans of management which had been suggested often proved abortive.

To the imperfectly denuded and arid state of the tongue, which was among the first and most obvious signals of danger, succeeds, by degrees, a new moist brownish or yellowish-white coat, spread evenly over its surface. With this change, an amelioration of the other alarming symptoms is gradually experienced. The tension and soreness of the abdomen are diminished,—the discharges assume a more natural appearance,—the pulse is lessened in frequency, and increased in force,—moisture often covers the skin,—and the mental alienation vanishes. The new fur now slowly begins to disappear, and the patient recovers, as from an ordinary attack of fever.

It cannot be as a stimulant simply that turpentine acts in this form of disease; for the principal danger is obviously not in the prostration of the patient, and the requisite degree of stimulation

may readily be obtained from wine or the volatile alkali. In the ordinary prostrated cases of typhus, it often does much good by its powers of exciting and maintaining the vigour of the circulation, and may be used with great advantage in alternation with other medicines of the same class; but, in the particular condition of fever which I have endeavoured to describe, its place can be supplied by no other remedy, and, though the theory of its operation, upon which I ground its employment, may be defective, it must certainly be allowed to exercise, in some way, a specific influence over the disease. (*North American Medical Journal.*)

*On the Use of Tartar Emetic.*

I had the opportunity of witnessing the administration of tartar emetic in large doses, as a daily medicine, to patients under the care of M. LAENNEC. His method is to begin with one, two, or four grains, as the total quantity for the twenty-four hours.

A solution is made in the proportion of half or the whole of a grain to half an ounce of simple or some lightly aromatic water, sweetened; and it is given every two hours. The patient is desired to drink very sparingly; for, without this caution, the medicine would most probably produce too much of emetic effect. In the first instance, this result very commonly happens; but it is remarkable how soon the stomach accommodates itself to large doses of this active medicine. When its continued use produces sickness, syrup of white poppy is added, in the proportion of an ounce to half a pint of the antimonial solution; or, as an equivalent, a grain of extract of opium. The total quantity of the tartar emetic is very commonly increased to twenty grains and upwards in the twenty-four hours. I saw an elderly man, who had, in this space of time, on the preceding day, taken sixty grains, without having experienced nausea or any other inconvenience.

M. Laennec considers that the tartar emetic, when administered with the freedom which I have described, exerts a highly useful power in diminishing inflammatory action in continued fever, and in the phlegmasiæ; and he is most satisfied with its action, when, after the first day or two, it ceases to produce any sensible effect on the stomach.

Reflecting on the extraordinary circumstance of the exhibition of this active medicine in such immense quantity with seeming impunity, I thought it probable that the French preparation might be weaker than our own; but, on comparing the crystals which I procured at Paris with those prepared according to the London Pharmacopœia, I could not discover any difference; nor is there the least essential distinction in the mode of preparation, as directed by the London Pharmacopœia and the French Codex. I have lately had many opportunities of prescribing tartar emetic on the principle of treatment which I have described, and I have been perfectly satisfied with its useful agency; but I have usually commenced with one grain, and never exceeded two grains, for the

first twenty-four hours; nor found it necessary to go beyond eight in the progressive quantity, except in one case of insanity, in which sixteen grains were given daily for a short time, with the greatest advantage. In the quantity of two grains, it has usually produced considerable sickness for the first day or two; but afterwards even the increased doses have seldom caused any nausea.

With some persons, however, the first dose of a quarter of a grain produces active sickness. It appears to me probable that the maximum of usefulness is to be found in a moderate range of doses, and that it is desirable to avoid trying how much the stomach and the constitution will possibly bear. Have we a security that the accumulation of a very large quantity might not produce violent effects? Indeed, I am informed of an instance in which the amount of sixty grains was taken in divided doses in a short time; the direction being given that the medicine should be repeated till vomiting was produced. At length, such severe sickness did take place, as could not be restrained for many weeks. (Dr. SCUDAMORE'S *Work on the Stethoscope*, &c.)

*Extract of Nux Vomica.*

In a case of long-standing paralysis of one of the lower extremities, I have had great cause to be gratified with the useful agency of the alcoholic extract, in relieving the symptoms of neuralgia. The patient, a gentleman between thirty and forty years of age, had been afflicted with occasional pains of great severity coming on suddenly, causing complete debility, lasting about twelve hours, and during such period producing exquisite tenderness of the limb. With the abatement of pain, sleep followed; and, on awaking, this tenderness had so completely passed away, that he could bear a free handling of the parts; but the muscular power of the limb was weakened during the day,—it was frequently affected with convulsive action, and its usual debility became much increased.

The case is in progress; but up to the present time the medicine has evidently produced good effects, and without causing any tetanic action of the muscles, which I have mentioned as being considered desirable in some cases; although an unusual sense of tightness was produced. Not the least pain has returned, and the limb is stronger. When I had increased the dose to a grain and a quarter during two days, the sense of tightness, joined with much feeling of weight, became troublesome, and I suspended the use of the extract. In forty-eight hours these symptoms disappeared, and the medicine has been resumed without any kind of disagreement. I may add, with satisfaction, that the retentive power of the bladder, which had been for a long time affected, became materially improved. (*Ibid.*)



## STATISTICAL MEDICINE.

*On Yellow Fever.*

M. le Docteur ANDOMEND recently read a Memoir, entitled "Critical Examination of the Opinions which have prevailed on the Origin of the Yellow Fever." The following are the results:

1st. Was the yellow fever, observed for the first time in 1695 at Martinique, from Siam, as was believed at that time, and from which it got the name of the Siam fever?—The experience of later times proves that the vessels which came from Asia did not communicate that disease, either in America or in Europe.

2d. Does the yellow fever spread itself, in America and in Europe, by means of a *peculiar* virus, like small-pox and syphilis?—This opinion, from which came the first ideas of contagion, has been victoriously opposed by a single consideration, that if the disease proceeded from a peculiar virus, it would be met with in inland countries, where it would remain; whilst it never has been observed but in maritime towns,—that is to say, where there are ships, and where it has come accidentally.

3d. Does the yellow fever depend on the climate of that part of America situated between the tropics; the opinion of Lind?—This is so much the less probable, because this disease has been frequently observed in the United States, and even in Canada; while it has never manifested itself in the seaports of America, or of the Pacific Ocean, although they are within the tropics.

4th. Is yellow fever produced by infection, which exists in seaports of America and Europe; the opinion of M. Devese?—Europe answers this question, that its seaports and its marshes existed before America was discovered, and yet the yellow fever was never seen there till after the discovery of this last continent, and indeed not till 200 years after it. In America, even, it had not been heard of from 1491 to 1695; and the disease has there been so much the more frequent and extended as they have improved the treatment of the Negroes.

5th. Did the yellow fever exist in America before the discovery of that continent; the opinion of M. Moreau de Jonnés?—This opinion is founded on the circumstance that, in times anterior to its discovery, whole villages abandoned certain situations, in consequence of their unhealthiness. The same thing happens in Europe, where we find (particularly in Italy,) villages, formerly flourishing, which have been abandoned because intermittent fevers destroyed the inhabitants; and it is so much the more probable that these same fevers were also fatal to man in America, that it is there the original inhabitants learned to cure them by cinchona.

6th. Has the concourse of Europeans in America been the cause of yellow fever; an opinion of some Spanish physicians?—It is impossible that we should carry into America a disease which we do not experience in Europe. We all there suffer from the effects of climate, and the diseases resulting from it are bilious

fevers, which may be taken for yellow fever; an error sometimes committed on both continents.

7th. Is the yellow fever endemic in Guinea; an opinion of Dr. Arrute?—France has officers in Senegal, where they never dreamed of yellow fever. This last opinion is not more founded in reason than the others; but it shows that the author, convinced that the yellow fever of Pont au Passage, in 1823, had come from a vessel which had been in Africa, renounces his belief in the disease originating in America, and that he cannot admit it to have arisen in an European port. He was not ignorant that the vessel had been used as a transport; but that did not appear to him so strong as it did to M. Andomend, who has used it as a basis for some new theories, recently published by him. (*Revue Medicale.*)

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#### SURGERY.

##### *Amputation of the Jaw.*

Dr. M'CLELLAN, professor of surgery in Philadelphia, gives the following account of this operation:—

Mr. Joseph Brown came to this city in the month of July last, from Orange county, New York, with an enormous carcinomatous tumor, which occupied the lower part of his right cheek, and extended over a large portion of the throat on the same side. It commenced on the inferior lip, in the early part of the year 1820, and gradually extended downwards and backwards over the base of the jaw. It was very distinctly circumscribed, and presented a firm cartilaginous kind of structure to the touch. Its margin occupied almost the whole substance of the lower lip, which was drawn very much towards the right by the growth of the tumor in that direction; it then passed downwards across the cheek, over the base of the jaw, just before its angle to the throat; finally, after extending forwards below the jaw, it surmounted the right side of the chin, and terminated near the left commissure of the lips. The lower portion of the tumor which extended into the throat was less prominent than the part above; and, on a careful examination, I ascertained that it was distinctly separate from the original tumor on the face, being made up of secondarily enlarged lymphatic and conglomerate glands. The whole surface of the lip and upper portion of the tumor had been ulcerated for several months previously, from the surface of which a very offensive ichorous matter was constantly discharging. On introducing a probe through the centre of the ulceration, the subjacent bone was found to be carious; which, indeed, might have been suspected from the firm adhesion of the tumor to the side and base of the jaw. Severe lancinating pains had been experienced by the patient for a long period, and his appetite had become very much impaired in consequence of the intolerable fetor of the discharge. His strength, however, and general health, were in other respects very good. There had been no hectic fever; nor had his

countenance assumed that shrunken cadaverous appearance, which is so characteristic of a constitutional affection in such cases. The disease had made but very slow progress during the preceding few months, and the pains were by no means increasing in severity. He was only forty-two years old, and felt not a little anxious to protract his life for the benefit of a rising family.

On the 28th of July, I performed an operation for his relief, in the hall of the infirmary of Jefferson Medical College, in presence of the professors and pupils of that institution. An incision was commenced at the left commissure of the lips, and carried downwards, over the symphysis of the jaw and right side of the thyroid cartilage, to the anterior edge of the sterno-mastoid muscle. A second incision was next carried from a little above the right commissure of the lips, around the opposite margin of the tumor, and across the angle of the jaw, until it reached the termination of the former incision. The whole mass of the tumor was then dissected downwards from the surface of the jaw, and from the throat beneath, until all the parts that were included between the two incisions had been removed. By this dissection several enlarged lymphatic glands were removed from the throat, together with the original tumor on the cheek.

After securing the facial and coronary arteries, I next proceeded to examine the condition of the jaw, which was deeply affected with caries. Having satisfied my assistants that it was absolutely necessary to remove it, I divided it by the metacarpal saw in two places,—first, at the symphysis, between the front incisors; and, secondly, a little before the angle, between the second and third molares. On dissecting out the intermediate piece of bone, the facial artery was again divided and secured; after which three more indurated, although not much enlarged, lymphatic glands were removed from the throat. As the surface of the submaxillary gland appeared to be discoloured and tumefied, all that portion of it which lay on the lower surface of the mylo-hyoideus muscle was removed; the remainder, which accompanied the excretory duct above the same muscle, being evidently sound, was left undisturbed. Of course, the facial artery was again laid open by this part of the dissection, and secured, for the third time, much nearer its origin than before. Although the sublingual gland was so fully exposed that it protruded very much, it was not deemed necessary to excise it, on account of its healthy appearance.

The soft parts being now satisfactorily disposed of, I proceeded to examine the posterior extremity of the bone, the cancellated structure of which appeared somewhat discoloured, and bled profusely. As its condition was so suspicious, and as it moreover formed an inconvenient projection, which the integuments could not be made to cover, I applied the saw again just at the angle, and removed about an inch more of the bone, together with the last molar tooth which was implanted in it. The integuments were then approximated, as much as possible, by three interrupted

sutures, by means of which the cut extremities of bone were brought much nearer together than before; and the size of the wound also was greatly diminished. Some strips of adhesive plaster, and pledgets of patent lint, secured by a head bandage, completed the dressing; after which the patient was able to walk about with great ease.

In two days after the operation, as the sutures produced a painful degree of tension, and displaced the two portions of bone very much, I removed them, and trusted to the adhesive straps and bandages alone for drawing the opposite sides of the wound together. From that time he complained of no particular inconvenience, and continued to recover very rapidly. In less than ten days the cavity in the throat was entirely closed, and the wound in the face was greatly contracted in size. On the third week he was so nearly recovered from the effects of the operation, that he insisted on returning to his family. The granulations which had sprouted up between the two extremities of bone were then almost cicatrised over in continuity with the integuments, and the deformity was surprisingly diminished.

A letter, dated Orange county, September 2d, has lately been received from Mr. Brown, which states that the parts are now almost entirely healed, and that he has the full power of mastication and articulation.

As it is by no means impossible that there may eventually be a return of the disease in this case, I do not presume to offer a complete history of it in the present communication. The final result will be stated in a paper which I shall hereafter publish, on the probability of affording relief by operations for the removal of specific tumors.

In conclusion, I cannot avoid expressing some degree of surprise at the fact, that intelligent surgeons could ever have anticipated the prevention of hemorrhage, in such operations as I have detailed, by previously securing either of the common carotids. The anastomoses between the branches of all the main arteries of the head are so large and frequent, that I question whether the division of any one of them would not be attended with a troublesome hemorrhage, even after the closure of both carotids. In every case in which the details have as yet been published, it appears that all the divided arterial twigs required the application of a ligature, whether the circulation of blood through their parent trunk had previously been intercepted or not. (*American Medical Review*.)

*Operation for Imperforate Anus, and Termination of the Rectum in the Vagina.*

In the January Number of "HECKUS, Litherorische Annalen der gesammten Heilkunde," for 1826, is a paper by Dr. DIEFFENBACK, a very intelligent and rising physician of Berlin, on Imperforate Anus; in which he recites a case where he performed the

operation for the imperforate anus, complicated with cloaca, with perfect success. The patient was a little girl about three months old, well grown for a child of her age, and appeared quite healthy. The external parts of generation were naturally formed; the anus was closed, and the fæces were discharged through a small opening, about one-third of an inch in diameter, in the upper and back part of the vagina. The operation for the removal of this deformity was made at two separate times. At the first, a curved director was introduced into the rectum, through the opening in the vagina, and pressed downwards: a sharp-pointed bistoury was then introduced immediately behind the fossa navicularis, and carried towards the end of the director, but without cutting into it. This incision was extended near to the os coccygis, thus dividing the whole of the perineum; and, when the edges of the wound were separated, the extremity of the rectum could be seen terminating in a cul de sac. The lower part of the gut was then separated carefully with the bistoury from the posterior surface of the vagina, slit open, and allowed to lie in contact with the sides of the first-made wound. The parts were, after the operation, treated with a cold lotion; and, when the suppuration begun, with a tepid fomentation. The opening from the rectum into the vagina, after having been once touched with lapis infernalis, was perfectly closed. For fourteen days, during which time the fæces passed through the newly-made wound, nothing unfavourable occurred, and the edges of the wound, at the end of that time, cicatrised.

In three weeks after the first operation, the second was performed,—namely, for the purpose of forming a new perineum. Drs. Meyer and Gedike, of Berlin, and Messrs. Coulson and Spry, of London, were present. The operation was begun by further separating the anterior surface of the rectum from the vagina, and the sides of the extremity of the rectum, being already adherent to the sides of the former incision: when this anterior part of the gut was separated, it was drawn backwards quite distinctly four or five times by the already adhering parts. The edges of the fore part of the old opening were now cut off, so that they might unite by the adhesive process when brought into contact. The deeper-seated parts were drawn together by a suture, the ends of which were cut off quite close, and the integuments by two small pins, similar to those employed in hare-lip, over which the twisted suture was applied; and thus were the parts effectually secured in contact, and a new perineum formed.

Immediately after the operation, the persons present had the satisfaction of seeing the fæces escape through the artificial anus which remained. A small bougie was introduced into the rectum daily, and the greatest cleanliness directed to be observed. On the fifth day, the suture and needles were removed: a complete union had taken place; and thus was the object of the operation;—namely, the formation of an artificial anus, with the closure of the opening into the vagina, satisfactorily accomplished. (*Med.-Chirurgical Review*, July.)

## MIDWIFERY.

*Case of Rupture of the Linea Alba.* By W. C. DENDY, Esq.

Mrs. Parsons, aged twenty-eight, was delivered of a very large child (her first), after a most severe labour, aggravated too by a premature rupture of the membranes. The pains at the latter stage were for about two hours almost incessant; and, as the presentation was more that of the forehead than of the vertex, I had recourse to the vectis to bring the latter part under the pubes, and finish the labour. After her delivery, I administered the usual anodyne; and on the second evening, a laxative. The contractions at the uterus were regular; and for two days my patient complained of no fixed pain. On the third day, however, I was informed that she had for some hours complained of an acute pain about the umbilicus and pubes, with smarting in the vagina, on the evacuation of urine; which, however, was abundant, as were also the lochia.

There was nothing unusual in these symptoms; but the circumstance which struck me was this: on putting aside the bedclothes, I perceived a large irregular tumor, about midway between the umbilicus and the xiphoid cartilage, at that time about four inches in diameter, and two inches in elevation. Its irregular form at once proved that it was not abscess, and in a few seconds the changes which were continually taking place, both in its shape and size, convinced me that it was a protrusion of some portion of the intestines, whose peristaltic action was now distinctly visible, as if covered but by integument, and which produced the protean alterations alluded to. At some periods, the surface of the abdomen presented its usual appearance; at others, and especially on the lapse of an hour or more, after taking light food, the protrusion would be very considerable, and the peristaltic action visible at some distance from the bed. On the contraction of the recti, I was enabled more minutely to trace the lesion. On passing my fingers along the edges of the canal formed between these muscles, my patient complained of soreness, similar to the friction of a raw surface; and, on pressing more firmly, I was enabled to lay my fingers, as it were, on the cavity of the abdomen. No such surface as that of the linea alba was to be felt affording resistance, and I was convinced that that tendon had given way to a considerable extent.

My first care was to subdue the acute symptoms; and I therefore ordered ten leeches to be applied round the umbilicus, and a blister above the pyramidales. The leeches bled profusely, and the blister rose freely. A cessation of the acute pain was the result. There was still, however, some tension, and a recurrence of the inflammatory symptoms took place on the following morning: the former active mode of treatment was had recourse to, (with the addition of repeated doses of hydr. subm. and pulv. antim.) with the same good effect. It may be mentioned that,

during her labour, she felt a snap in her right ear, which was followed by partial loss of hearing; and that, on examination per vaginam, at her request, I discovered that she had slight prolapsus of the uterus.

As the acute symptoms had now subsided, it was proper that I should direct my attention more particularly to the protrusion. I accordingly reduced the then prolapsed viscera, and applied a broad flannel roller round the abdomen over the umbilicus, and as high as the margin of the ribs. The bandage produced an immediate sensation of ease and support to the patient, the previous feeling of debility being directly removed. On the evening, however, soon after the application of the bandage, a discharge of pus, to the amount of about two ounces, issued from the vagina; but from what particular part I could not, from the nurse's account, or from any previous symptoms, determine.

On removing the bandage about a week after its first application, as my patient was lying on her back, I could still feel a considerable depression between the recti, and she complained of a degree of smarting on the pressure of the fingers; but there was no protrusion. After the lapse of another week, I removed the bandages *as she was sitting*. The hollow was still apparent; but the sensation of soreness much less, and there was no protrusion. It is now a month since the birth of her child; she continues to wear the bandage. The only inconvenience she complains of is from the prolapsus uteri, which, however, is not continual; but is often produced by the contraction of the abdominal muscles, in expelling the intestinal or vesical contents.

I am disposed to believe that, during the excessive pains of labour, very much advantage is derived from compression of the abdomen by bandage; yet such an auxiliary is not generally employed. With a somewhat similar precaution, we support the perineum on the protrusion of the fœtus; and, among persons who are addicted to very laborious exertion, the system of bandaging is by no means uncommon, to preserve a closer compact of muscular fibre, thereby concentrating and increasing power, and of course diminishing the danger of laceration. In modern surgery, too, something like this principle has guided us in the application of adhesive plaster to indolent ulcers, with a view to impart tone and healthy action to those vessels whose office it is to restore the losses, and repair the morbid changes, of the body. (*Med. Repos.*)

#### MISCELLANEOUS.

##### *Description of Two Children united together.* By Dr. BERRY.

These children are females, three years old this month, (April 4, 1807;) one about thirty-four inches high, the other one-fourth of an inch less. Their features have strong resemblance; the heads of each rather long, and the sides much flattened or elongated by the birth. They are unable to sleep in any other position than

face to face. They appear to be connected by their sternums, being united in the same manner as the sides of the letter V. The integuments at the place of joining have the same appearance as the rest of the abdomen, and a ligament can be felt surrounding the junction, which no doubt is the linea alba. When the children are separated from each other, the distance between the top of each sternum is six and a half inches, and between each pubes eight and a half inches, at the full separation. They have only one navel, are healthy, and nowise deformed. Evacuations regular, but at different times. Have had the small-pox at the same time, and favourably. They are daughters of a woman of the Treaver caste. The mother did not suffer particularly in the delivery: the same woman has since had twins, which are living. When they walk, it is sidewise, and something in the form of a circle. If one only is pinched, the other does not feel it; but, if the part uniting their bodies together is pinched, both feel the pain. If medicine is given to one, it affects both. One will awake, while the other will sleep, but both generally sleep at the same time. One is much more lively, and rather stouter than the other. They cross their heads and arms to act or look different ways with ease; they can walk up a stair, and are active when they are playing with other children. One of these children was entirely nourished, for some months after birth, by what it received from the stomach or other part of the alimentary canal of its sister, and still continues to eat rather less: it is, however, as healthy, and nearly of as large a size, as the other.—They were perfect in every other respect, and lived until they were nearly seven years old, when the death of one destroyed the other. Being natives, and at a distance from any medical person, there was no examination after death; nor, perhaps, would the parents have permitted it. (*Transactions of the Medico-Chirurgical Society of Edinburgh*, vol. ii.)

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## INTELLIGENCE.

### MONTHLY REPORT OF PREVALENT DISEASES.

DURING the past month, we have experienced more than the usual vicissitudes of our uncertain climate: the thermometer has stood so high as 88°, and so low as 52°; while we have had calms and heavy gales of wind,—many successive days of a burning sun and cloudless sky, and others of continued rain. These changes, however, have produced neither so great a variety of diseases, nor so many invalids, as might have been expected. The leading ailment has been derangement of the digestive system: this has frequently been attended with a quick, small pulse, a yellow tongue, diarrhoea, and considerable debility; but in scarcely any instance has it assumed the character of true cholera. These cases have become less numerous since the weather became cooler, and pulmonary diseases have increased proportionally.—Rheumatism was decidedly more prevalent during the very hot, than during the cooler period of the month.—In our last report we mentioned the case of a gentleman who had recovered from an apoplectic seizure; he has since perished from a return of the disease: no morbid appearance whatever was found in the brain. We have seen two other



apoplectic affections, neither of which have proved fatal: of these we may, perhaps, give a more detailed account on a future occasion.

Measles has prevailed to a considerable extent in some districts: we lately ascertained the existence of thirteen cases in a court containing only twelve houses.

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*Note respecting the Case of James White, published in our last Number.*

This, it will be remembered, was a case in which a tobacco glyster had been administered, prior to the patient's admission into the Middlesex Hospital, and in which the scrotum was discoloured, apparently from having been bruised. The following note is from Mr. TWEEDALE:

"In your last Number, Mr. Shaw has published a case of Hernia, and attributed the symptoms to the effects of a tobacco-glyster, given before the man arrived at the hospital. The following statement may, perhaps, put the case in a different point of view:—About four o'clock in the morning of the 9th of December, 1825, James White, a patrol, while in pursuit of a thief, ran violently against a post, and received a severe blow on the abdomen. A large scrotal hernia immediately came down. Two hours afterwards, he was brought to St. Giles's Infirmary. He then complained of severe pain of his belly, and vomited frequently; his countenance was sunk, and indicative of great distress; and the pulse nearly imperceptible. On being put to bed, he rallied a little, but the vomiting and pain continued. A tobacco glyster was given, and the taxis used, but without success. Mr. Ogle (under whose care the man was) then sent him to Middlesex Hospital. As the symptoms referred by Mr. Shaw to the glyster were present before that was given, we must look to some other quarter for their cause. If I may be allowed to hazard a conjecture, I should be disposed to attribute them partly to the shock of a severe blow on the abdomen, and partly to the descent of a considerable portion of intestine. Whatever blackness of the integuments Mr. S. noticed, must be referred to a long-continued application of the taxis at the hospital, before Mr. S. saw the patient; for certainly nothing of the kind was visible when the man left the infirmary."

On the receipt of the above, we wrote to Mr. SHAW, requesting to know whether the history of the case had been correctly given, so far as regarded the period during which the patient was in the hospital. We subjoin his reply:

"Whatever may have been the patient's condition before the tobacco glyster was administered, there can be little doubt that the extraordinary depression he laboured under, for the first ten hours he was in the hospital, was caused principally by the tobacco; for the symptoms were not only exactly similar to those presented in cases where this remedy has been used, but the patient recovered gradually, and in the manner a person rallies after having been sick from smoking or chewing tobacco. I shall, perhaps, on another occasion, offer you some remarks on the soundness of the theory on which the practice of using the tobacco glyster is founded, and on the obscurity which it frequently produces in the nature of the symptoms. But I cannot at present avoid expressing my surprise, that your correspondent should have administered the tobacco when the patient was in the state he has described, as the most strenuous advocates for its employment advise it only as the means of producing that condition under which it would appear that this patient already laboured. With regard to the bruised condition of the scrotum, as White acknowledged having made use of violent efforts to reduce the rupture, this appearance may fairly be attributed to his own unskilful surgery, without blaming his medical attendants, either before or after his admission into the Middlesex Hospital."

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*On the Qualifications of Medical Officers in the Army.*

*Hospital Assistant.*—The candidate for this appointment in the medical department must be unmarried, not under twenty-one nor above twenty-six years of age; he must produce certificates of having served a regular apprenticeship, of not less than three years, (to a member of either of the Royal Colleges of Surgeons of

London, Dublin, or Edinburgh, will be preferred,) and of attendance, for one year at least, at an hospital or infirmary of celebrity. Without apprenticeship, two years' attendance of an hospital, with one on practical pharmacy, will be required. He is to possess a diploma from one of the Royal Colleges mentioned, and must exhibit certificates of regular courses of study in the following branches of professional knowledge, at established schools of eminence, viz.—

Anatomy.....	18 months,
Practical Anatomy.....	12 ditto,
Chemistry .....	6 ditto,
Materia Medica .....	3 ditto,
Surgery .....	6 ditto,
Theory of Medicine and Physiology ....	6 ditto,
Practice of Medicine .....	6 ditto,
Botany.....	6 ditto,

And of Clinical Lectures on the Practice of Medicine and Surgery.

It will be considered an additional recommendation to gentlemen entering the service, to have attended Lectures on Forensic Medicine, and public establishments for the treatment of diseases of the Eye and Skin, and of Mental Derangement.

Gentlemen who have had an university education will be preferred. It is desirable that all should have studied natural philosophy, mathematics, and natural history in all its branches; but a liberal education, and a competent knowledge of the Greek and Latin languages, are indispensably requisite in every candidate.

The greater the attainments of the candidates in various branches of science, in addition to competent professional knowledge, the more eligible will they be deemed for promotion; for selections to fill vacancies will be guided more by reference to such acquirements, than to mere seniority. With the above-recited qualifications, officers are entitled to promotion as assistant surgeons and regimental surgeons; but every gentleman must have served five years at least in the junior appointments, before he can be promoted to the rank of regimental surgeon; and he who gives the best proofs of diligent exertion in the performance of public duty, and of attention in the acquirement of practical knowledge, will be noted as the most eligible candidate for advancement.

Gentlemen already in the service are earnestly recommended to avail themselves of every opportunity of adding to their knowledge, by attending universities or schools; for which purpose, every facility in his power will be afforded by the Director General. They are especially desired to transmit to this office, the statements of such classes as they may have attended subsequently to their examinations before this Board, either on professional or other branches of science, that the same may be duly registered: and every gentleman must be prepared for further examination, before he can obtain promotion, or return to the service from the half-pay list.

Medical officers are encouraged and recommended to look forward to the appointment of Surgeon to the Forces, and of Physician to the Forces; and to endeavour especially to qualify themselves for either, according to the bent of their inclinations, and to their previous study.

For the commission of Surgeon to the Forces, it is expected that the candidate shall have attended a public hospital of celebrity at least two years, and it is desirable that one of them should have been passed at a London hospital.

The rank of Physician to the Forces requires, in addition to the knowledge and experience to be gained in the regular progress of study and of service, that the candidate should be a Fellow or Licentiate of the Royal College of Physicians of London, or a graduate of the university of Oxford, Cambridge, Dublin, Edinburgh, Glasgow, or Aberdeen.

Although the British schools are specified, it is to be understood that candidates, who have received regular education in approved foreign universities or schools, will be admitted to examination.

J. M'GRIGOR, *Director General.*

W. FRANKLIN, *Principal Inspector.*

*Army Medical Department; 1st July, 1826.*

The following has been transmitted to us for insertion by the Secretary to the Association.

*Report of the Associated General Medical and Surgical Practitioners.*

The anniversary meeting of the Associated General Medical and Surgical Practitioners, hitherto known under the title of the "Associated Apothecaries and Surgeon-Apothecaries of England and Wales," was held at the Crown and Anchor Tavern, in the early part of last month; and the following Report presented:—

Faithful to the trust reposed in them, your committee respectfully submit to the general meeting a report of their proceedings during the past year.

From the passing of the Act of 1815, commonly called "the Apothecaries' Act," the committee, successively appointed by the Association, have been anxious to extend the salutary provisions of that law, and to remedy its glaring defects; as well as to increase, through more efficient examinations, the usefulness of the practitioner, and the respectability of the profession to which he belongs.

Early in the last session, your committee determined on renewing their application to Parliament; and, after a conference of the deputation (formerly appointed) with Mr. Hume, they resolved to present a petition on the subject of those complaints, which the Apothecaries' Society continued to overlook, or affect to despise, even while (under the dread of losing their cherished Act altogether) they were remodelling their Court of Examiners, and improving their methods of examining candidates.

Meanwhile, the conduct of the Council and Court of Examiners of the College of Surgeons having excited much animadversion, and produced a disposition generally on the part of the profession to remonstrate on the impropriety, and even the injustice, of certain newly adopted regulations of theirs, it occurred to your committee, that, as persons entrusted by a numerous and highly respectable portion of the professional public with its welfare, it was particularly incumbent on them to take the necessary steps for showing their sense of the extraordinary conduct of the College; to assist in redressing the evils which were likely to arise, both to the community and to the profession, from such conduct as had recently been displayed; and especially to put the practice of Midwifery into such a state as would better secure the safety of human life.

That the deliberations contemplated might have all the aid which could be derived from numbers, experience, and talent, it was resolved to call a meeting,—not merely of the members of this Association, which might appear much too limited for the inquiry, but of general practitioners, who might represent fully the feelings and wishes of the majority of practitioners, resident in or near the metropolis; and, further, under these circumstances, your committee deemed it fair to defray, out of the funds of the Association, all the expences which should accrue from convening such a meeting; but, once assembled, it would remain for that meeting, out of its own resources, to adopt and prosecute such remedial measures as might seem to them best suited to the occasion.

Your Committee believed that, in thus acting, they were, without departing from the tenor of their injunctions, performing an important public duty; and that the great body of general practitioners would gladly avail themselves of the opportunity thus afforded to express the sentiments they entertained on very various subjects connected with the profession, and to concur in such measures as might appear just and necessary.

The meeting, which was held on the 25th of February last, (a great majority of which were members of the College of Surgeons,) abundantly confirmed the propriety of the reasoning of your committee: it was very numerous and most respectably attended; and the Resolutions then proposed, and at a subsequent meeting confirmed, became the foundation of a petition to the House of Commons, which, after specifying the existing grievances, prayed the honourable House to institute an inquiry into the present state of medicine throughout England and Wales,—to cause efficient examinations as to the qualifications of all persons about to practise medicine or midwifery,—and to adopt such other measures as, in the

judgment of the honourable House, might seem necessary for the remedying of the alleged abuses.

This petition, numerously signed, was presented to the House of Commons by Mr. Hume, on the 9th of April, and was ordered to lie on the table. That no discussion was entered into on its merits, was undoubtedly owing to the extreme pressure of public business,—the shortness of the session,—and to the meditated dissolution of Parliament, which has since taken place.

Various letters from eminent practitioners in the country, expressive of their concurrence in the measures adopted at those meetings, and the subscription cheerfully entered into to defray the expences incurred, are satisfactory testimonials that the course resolved upon was very generally approved; while the whole tenor of the Resolutions passed at these two meetings demonstrate the disinterested conduct and liberal views of the gentlemen who took the lead on these occasions.

Thus, without the smallest deviation from the principles of the Association, your committee have zealously endeavoured to ascertain the sentiments and wishes of a still more extensive class of the profession, and induced them to apply to Parliament for the removal of evils, which can be obviated only by legislative enactment,—sensible that they could not possibly obtain for the public on the one hand, and for the profession on the other, a greater boon than a free and comprehensive inquiry into the present state of medicine, the abuses in which are continually extending themselves, and calling with a louder voice for investigation and redress.

If there were any persons who entertained a hope that, on a future application to Parliament, the Apothecaries' Society would so far consider the feelings of practitioners, and the dignity of the profession, as to withdraw the clauses in their Act, so often and so indignantly complained of, they must now be convinced that such a hope can no longer be reasonably entertained. Within these two years, the Society have been twice before the legislature; and it is painful to observe, that the maintenance of the Act of 1815, with nearly all its original imperfections, and teeming with degradations, has seemed of more value in their eyes, than the respect of their medical brethren, or even the honour of the profession itself.

Your committee, therefore, earnestly recommend to their successors, collectively and individually, to use their utmost endeavours to obtain and diffuse information as extensively as possible; and, immediately after the meeting of Parliament, to present petitions to both Houses, of similar import to those already submitted; not doubting that, as no power can render error perpetual, an enlightened Legislature will sooner or later perceive and remedy all the grievances complained of, and place on its proper basis a profession so highly important to the public good.

The expenditure has been kept within as narrow limits as possible; and the committee confidently trust that, in this as in all other instances, the members of the Association will recognise an earnest desire on the part of the committee to render their labours subservient to the welfare of the community, and to the respectability and usefulness of the general practitioner.

### *Instrument for ascertaining the Presence of Animal Matter in the Atmosphere.*

DR. GRANVILLE has invented an instrument, which, by means of a preparation of chlorine, enables him to ascertain, not only whether animal matter, in a state of decomposition, be floating in the air, but also the quantity of such animal matter; a knowledge which we cannot attain by the usual apparatus for analysing atmospheric air, and the importance of which to the medical profession must be obvious. He proposes calling the instrument the *Septometer*.

### *Cupping.*

MR. KENNEDY, of Virginia Terrace, has invented a cupping-glass, calculated to facilitate the operation in the hands of the inexperienced. The difficulty with beginners is to produce a sufficient vacuum without the air being too much exhausted, as this causes so much pressure on the skin as to interrupt the circulation through the minute vessels. Mr. Kennedy's contrivance is in principle the same

as that we formerly mentioned as adopted by Mr. CLARKE. It consists in placing within the glass a small piece of sponge, immersed in spirits of wine; but this, instead of being attached to a bent silver spring, is introduced through an aperture at the fundus of the cup, which is rendered air-tight by a screw armed with a piece of leather. Those unaccustomed to the operation will succeed better with either of these contrivances, than with the common apparatus: those, again, who are accustomed to it will only find themselves encumbered by adopting them.

### New Editions.

There is considerable justice in the remarks contained in the following note, which we have received from a "Member of the College of Surgeons."

"A very great benefit would be conferred upon the profession, if authors, when called upon for new editions of their works, would publish any alteration of sentiment, or any addition of matter, separately in the form of an appendix. Whereas, in the usual mode of sending forth a new edition of a work into the world, former editions become of comparatively little value, and consequently the property of individuals seriously injured. The mischief does not rest here. Proprietors of early editions have, if anxious to possess themselves of the author's latest sentiments, to make a second purchase. This is a gross tax, and loudly calls for the sentiments of the profession. I would be very far from imputing dishonourable motives to authors who are almost yearly invading the property of their brethren. There can be no doubt but that, on their part, the injury is quite unintentional; and let it be pointed out to them through the aid of your Journal, and I trust that, in a short time, we shall have the satisfaction to find improvements and alterations published separately, at comparatively trifling expense."

### MONTHLY LIST OF MEDICAL BOOKS.

*[It having been hinted to us that gentlemen, sending copies of their Works, prefer having their titles given at length, it is our intention, in future, to comply with this suggestion: but it is to be observed, that no books can be entered on this List except those sent to us for the purpose;—finding, in the lists hitherto transmitted, that the names of works have frequently been given as published, which have not appeared for weeks, or even months, after.]*

An Elementary System of Physiology. By JOHN BOSTOCK, M.D. F.R.S., &c.—London, 1826.

A Treatise on Diet; with a View to establish, on practical grounds, a System of Rules for the Prevention and Cure of the Diseases incident to a Disordered State of the Digestive Functions. By J. A. PARIS, M.D. Fellow of the Royal College of Physicians, &c. &c.—London, 1826.

Remarks on the late Attempt to subvert the Charter of the Royal College of Surgeons; with a dispassionate Examination of some of the Regulations of the Court. To which are subjoined, Animadversions on the evil Tendency of the "Lancet;" and Observations, respectfully addressed to general Practitioners, on the best Means of maintaining their respectability and privileges. By WILLIAM COOKE, Member of the Royal College of Surgeons, Editor of an Abridgment of "MORAGNI de Sed. et Causis," Secretary to the Hunterian Society, &c.

Phrenology, in connexion with the Study of Physiognomy. By G. SPURZHEIM, M.D. of the Universities of Vienna and Paris, and Licentiate of the Royal College of Physicians of London. Part I. Characters. With thirty-four Plates.—London, 1826.

Observations on the Artificial Mineral Waters of Dr. STRAUVE, of Dresden, prepared at Brighton: with Cases. By W. KING, M.D. Fellow of the Royal College of Physicians, London; late Fellow of St. Peter's College, Cambridge.—Brighton, 1826.

Refutation de la Doctrine Medicale de M. le Docteur Broussais, et Nouvelle Analyse des Phenomenes de la Fievre, par L. CASTEL, &c. &c.—Paris.

## METEOROLOGICAL JOURNAL,

From June 20th, to July 20th, 1836.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

June	Moon.	Rain gauge	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	MAX.	MIN.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			64	71	52	30.30	30.30	61	68	ENE	ESE	Fine	Fair	Fair
21			61	67	53	29.25	29.24	65	74	NNE	NE	Fine	Sm. Ra.	Fair
22			65	75	52	30.20	30.21	72	72	NE v.	E	Fine	Fine	Fair
23			67	78	52	30.24	30.25	79	59	NE	NE	—	—	—
24			65	78	57	30.25	30.22	61	63	ENE	ENE	Fine	—	—
25			68	78	57	30.17	30.13	63	61	ESE	E	—	—	Flue
26			67	83	65	30.08	30.00	61	61	E	E	—	—	—
27			70	86	70	29.85	29.80	63	58	NNW	S	—	—	Cloudy
28			75	88	65	29.92	29.99	61	62	SW v.	SW	—	Sm. Sho.	Fair
29			76	81	64	30.03	30.06	63	72	W	W	—	Fine	—
30		.6	70	82	66	30.06	30.03	66	61	WSW	W	Cloudy	—	Rain
July 1			69	78	62	30.04	30.06	70	63	SW	SW	—	—	Fair
2			76	80	65	30.09	30.12	61	58	WNW	SW	Fine	—	Fine
3			76	83	63	30.10	30.06	62	63	SE	E	—	—	—
4			70	82	67	29.96	29.84	63	69	SSE	E	—	—	—
5			80	82	65	29.75	29.77	60	64	SSW	SW	—	—	Cloudy
6			73	81	68	29.80	29.75	70	61	W	WSW	Cloudy	—	Fine
7			79	82	65	29.69	29.64	65	66	W	SSW	Fine	—	—
8		.8	74	81	67	29.58	29.58	65	73	S	WSW	—	—	Rain
9			75	80	64	29.57	29.60	69	60	SSW	W	Fair	—	Fine
10			73	78	61	29.65	29.72	61	61	WSW	W	—	—	Fair
11			65	76	62	29.74	29.81	63	63	WSW	WNW	—	—	—
12			65	76	65	29.76	29.66	70	72	WNW	SW	Sm. Ra.	Fair	Fine
13		.11	70	72	59	29.55	29.55	72	83	WSW	SW	Fair	Rain	—
14			65	75	52	29.62	29.72	72	60	W	SW	—	Fair	—
15			69	74	59	29.74	29.75	65	61	SW	WSW	Fine	—	Rain
16		.5	65	70	55	29.66	29.75	75	62	SW	WNW	Rain	—	Fair
17			65	73	59	29.83	29.83	62	63	N	WSW	Fine	—	—
18			70	73	61	29.62	29.78	50	63	WNW	W	—	—	—
19			67	73	59	29.78	29.90	65	58	WNW	WNW	—	—	—

The quantity of Rain fallen in the month of June, was 62.100ths of an inch.

The London Medical and Physical Journal *professedly* contains an account of the most important improvements which are made in Medicine and the collateral branches of Science; and it has been thought that, in addition to the means hitherto adopted for conveying this information, considerable advantage would be deduced from giving each month a history of such Cases occurring at Public Institutions, as might seem calculated to illustrate any points in pathology or practice. On mentioning this idea to the Physicians and Surgeons connected with some of the principal Hospitals and Dispensaries in the metropolis, the utmost readiness was manifested by these gentlemen to have an account of the cases under their care laid before the public; while every facility was promised for obtaining the necessary information. The Editor begs respectfully to express his sense of the liberality which has thus been shown by his professional brethren; and, while he absolves them from all responsibility with regard to the accuracy of the details, he pledges himself to take every means in his power of ascertaining the authenticity of the cases which he publishes: at the same time he requests it to be understood, that he will be ready to correct any misstatement, should such inadvertently be made.

The manner in which it appears to the Editor most eligible to arrange these, is according to subjects,—giving in succession a few cases of the same disease, particularly where there is any difference in the symptoms or treatment, the detail of which is likely to prove instructive. It is obvious that this object cannot be accomplished in every instance; but, with a view to secure its fulfilment as frequently as possible, it is intended to make the Reports retrospective, not confining them exclusively to those cases which are of recent occurrence.

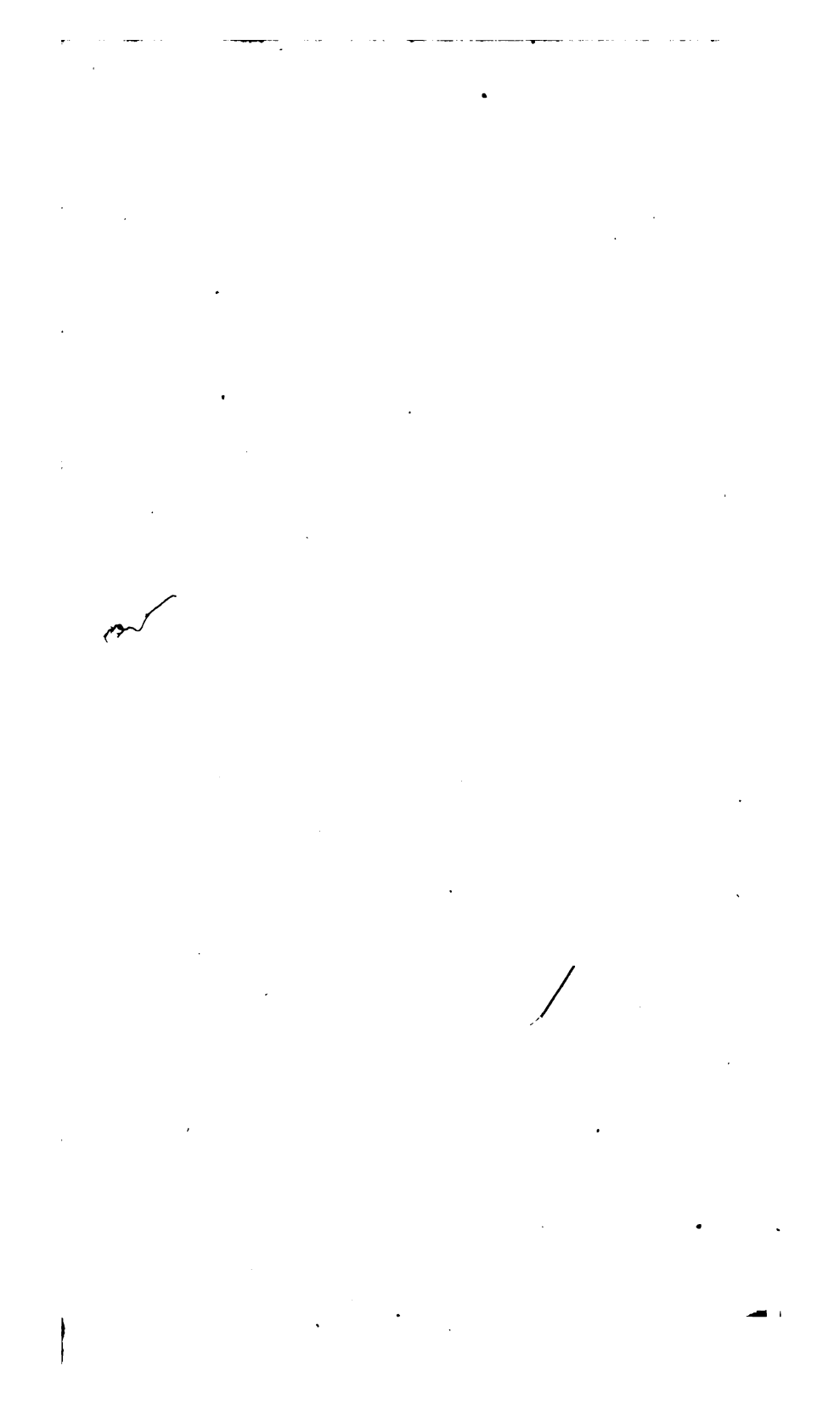
The Profession in general, and our old Correspondents in particular, are respectfully invited to favour us with Cases, Facts, and information of any kind connected with Medicine and the collateral Sciences.

## NOTICE TO CORRESPONDENTS.

Communications have been received from Dr. WEATHERALL, Dr. MACANDREW, Mr. HUTCHINSON, Mr. MACKENZIE, Mr. CHEVALIER, Mr. GULLAN, Mr. FROST, Mr. TWEEDALE, Mr. HAMILTON, Mr. FRASER, "A PUPIL," and Mr. KING.

**ERRATA.**—In pages 103 and 109, for "white-heart" and "Morella" cherry, read "common red cherry."

Unavoidable circumstances led to the preceding Number being passed rapidly through the press, which gave rise to several typographical errors.—Page 1, for "retrospectively," read "retrospective." P. 12, line 3, for "bass," read "bags." P. 13, second prescription, for "alterna quaque mane," read "alternis diebus mane." P. 40, for "optic nerves," read "optic nerve."





*Mr. Carles case of Brouchocele.*



*Mr. Chevaliers case of Calculus.*

*Weight Six Drachms.*



# THE LONDON Medical and Physical Journal.

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NO 331, VOL. LVI.]      SEPTEMBER, 1826.      [NO 3, *New Series*.

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.—RUSH.

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## ORIGINAL PAPERS.

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CASES OBTAINED FROM PUBLIC INSTITUTIONS, AND OTHER  
AUTHENTIC SOURCES.

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### BRONCHOCELE.

*Case of Bronchocele, in which the superior Thyroid Arteries were tied.* By H. EARLE, F.R.S. &c.

[WITH AN ENGRAVING.]

JANE LARKING, aged seventeen years, a native of Malling, near Maidstone, labouring under a very large bronchocele, was admitted into St. BARTHOLOMEW'S HOSPITAL, on the 5th December, 1822, under the care of Mr. ABERNETHY. When about thirteen years of age, she first perceived a swelling on the front of the neck, which for some time caused little or no inconvenience. At the age of fourteen the catamenia appeared, and for the space of two years she menstruated regularly; during which period the tumor diminished. At sixteen menstruation became irregular, and the gland rapidly enlarged up to the period of her application at the hospital. She had for some years been occasionally troubled with pain in the chest, accompanied with severe cough. Various remedies were employed in the country, without the least success.

At the time of her admission, the gland was very painful, and had acquired considerable magnitude, causing great difficulty in respiration and deglutition. The carotid arteries were displaced from their natural situations, occupying the outer and posterior margins of the tumor. The superior thyroid arteries were observed much enlarged, their pulsation being evident at some distance. The state of her health was in every respect bad: menstruation irregular, bowels habitually costive, pulse rapid, tongue foul; she suffered much from pains in the head and drowsiness, and she complained of pain in her chest and cough.

The principal medical treatment employed consisted in endeavouring to improve the health, by regulation of diet and attention

to the state of the secretions; the neck was bathed with tepid water. Under this plan of treatment some amendment took place; the tumor diminished rather in size, and was less painful.

After some time, her health appearing to suffer from confinement in the hospital, and the symptoms of affection of the lungs increasing, she was recommended to return into the country, and left the hospital about the middle of February.

On the 15th of July, 1823, she was again admitted into the hospital, under my care. She stated that, on her return into the country, her health improved and cough subsided, but the tumor continued to increase, particularly during the last two months, causing so much difficulty of respiration as at times to threaten suffocation. Finding herself daily getting worse, she determined to return to the hospital.

On the evening of her admission, her difficulty of breathing was extreme, and she was wholly incapable of swallowing any solid food; her pulse was 120; bowels costive; the catamenia had not appeared for five months. The cough and pain in the chest had returned, with aggravation; headache and drowsiness constant. The bronchocele was evidently much increased. The superior thyroid arteries were greatly enlarged; that on the right side communicating a peculiar thrill when felt, which led to the supposition of its coats being diseased.—Leeches and evaporating lotions were applied to the tumor; and *Pil. Hydr. gr. v.*, and *Pil. Aloës c. Myrrha gr. x.*, were ordered to be taken every night.

The leeches were repeated on the 16th, 19th, 22d, and 25th, without any decided benefit. She also took *Liquor Potassæ Hydriod. m. x. ter die*; but this producing considerable nausea, was soon discontinued.

On the 1st of August,\* it was evident that the tumor had augmented since her admission, and her breathing was become so extremely laborious, that it was apparent she could not long survive without some relief being afforded. Under these circumstances, I determined on tying one of the thyroid arteries.

On the 2d, at half-past twelve A.M. I passed a ligature round the right superior thyroid, which was much the largest. The vessel was healthy, but enlarged to nearly the size of the carotid. The most acute pain in the head immediately followed the tightening of the ligature. The pulsation in the tracheal side of the artery diminished materially, but did not entirely subside. About half an hour after the operation, the pain in the head continuing, twenty ounces of blood were taken from the arm, which afforded some relief. Cold cloths were directed to be constantly applied to the tumor, and the patient's head was much elevated with pillows.

At four P.M. the pain had abated, but there was much drowsiness; the pulse at the wrist quick, but not full; the carotids

\* The drawing, from which we have given a representation of the tumor, (see Frontispiece,) was taken this day.

beating with greater violence than before the operation, the pulsation being evident at some distance along the course of the thyroid up to the ligature.—Saline purgatives, with tincture of digitalis, were ordered for her.

August 3d.—She passed a bad night. Her pulse was rapid, tongue furred, and the drowsiness amounted to coma; the pulse in the carotids greatly exceeding in proportion that at the wrist. The bowels were moved with calomel and jalap, and twenty leeches were applied to the temples, which continued bleeding the whole day, and afforded great relief. In the evening, all her bad symptoms had abated, and her breathing was greatly relieved. She passed a good night, and continued to improve.

On the 6th, the tumor was measured, and found to be considerably smaller; respiration and deglutition performed with comparative facility; the pulsation in the thyroid and whole tumor much diminished: on the tracheal side it had ceased, and the left thyroid beat with much diminished force. The cough had nearly left her.

On the 11th, the neck was measured again, and the tumor was found to be much diminished. The portion of the artery between the ligature and the carotid had ceased to beat. The patient stated herself to breathe and swallow with greater ease than she had done for the last two years. The ligature came away in the evening in the poultice.

From this time to the 24th, every thing went on favourably. On measuring the neck, the tumor was found to have diminished three and a half inches in circumference, principally on the right side.

As the girl was anxious to return home to her friends, and her health began to suffer from confinement, she was dismissed on the 28th of August, with an understanding that, if the tumor at all encreased, she would return, and have the artery on the left side tied.

On the 11th of September she came back, in consequence of her finding the tumor remain stationary, and the artery on the left side pulsate with increased force. On the 17th, the artery was secured: it was healthy in its texture, and about the size of the radial artery. The patient suffered a good deal from hysteria and apprehension before the operation, dreading a return of the severe pain in the head and coma. Leeches had been previously applied, and her system much depleted by saline purgatives. No alarming symptoms followed the application of the ligature. The diminution in the size of the tumor was not nearly so great nor so rapid as after the first operation. The ligature came away on the 1st of October, on which day the menses reappeared, after an interval of nearly seven months.

On the 10th, the patient finally left the hospital, having no cough, no impediment in swallowing, and respiring with perfect freedom. The tumor was evidently smaller and softer, and appeared more divided in its texture. I heard from her in November,

and again in January 1824, at which time the tumor continued slowly to decrease, and her health was greatly restored.

The fortunate termination of this case was the more gratifying, as it was the general opinion, before the first operation, that all attempts would be in vain, in consequence of the supposed diseased state of the girl's lungs.

#### MALFORMATION OF THE RECTUM.

*Case of Imperfect Rectum, for which an Operation was successfully performed.* By Mr. EARLE.

A CHILD, aged nine days, was brought to St. Bartholomew's Hospital, June 17, 1826, in consequence of an imperfect rectum. The abdomen was so much distended, that the convolutions of the intestines could be distinctly traced through the parietes. Mr. Earle examined the child, and found the anus perfectly formed, and a cul de sac about an inch and a half in length, into which he inserted his little finger. In doing this, he stated that he felt the sphincter muscle contract strongly; and at the same time a strong impulse from within was conveyed to the top of his finger. He passed the canula of a full-sized trochar, and pressing it against the bottom of the sac, he introduced the trochar, and, after piercing about three lines in depth, the canula passed freely into the bowel, and the trochar was withdrawn. A powerful discharge of flatus followed, which was succeeded by well-coloured feculent matter. The canula was retained in for forty-eight hours; after which an elastic gum tube was substituted for some days, and the passage was directed to be enlarged by the introduction of bougies. The child recovered perfectly.

The point of most interest, next to the successful termination after the lapse of nine days, was the total absence of meconium, of which not a vestige could be traced in the fæces, which were remarkably healthy in colour and consistence.

#### PHAGEDENIC ULCERS.

*Cases illustrative of the different Forms of Phagedenic Ulcer.*

Communicated by G. BABINGTON, Esq. Surgeon to the Lock Hospital.

##### I. *Case of Phagedenic Ulcer, treated with Mercury.*

ANN COLLINS, ætatis twenty-one, was admitted into the Lock Hospital, on the 29th of January, 1825, with a sloughing sore, which had destroyed the extremity of the urethra, and extended upwards as far as the clitoris. It was spreading rapidly in every direction. The surface of the sore was dark, and the surrounding parts were much tumefied, and of a bright florid red colour. It appeared by her description, that a small sore was first discovered near the orifice of the urethra, a fortnight before her admission. In a few days it became exceedingly painful, and rapidly increased

in size. The pain was extremely severe and constant, but was much augmented on passing the urine, so that she had voided none for more than twenty-four hours previous to her admission into the hospital.

She was ordered to take five grains of the Pil. Hydrarg. twice in the day; to keep an aqueous solution of Opium, covered with a bread-poultice, as a constant application to the sore; and to fumigate it every night and morning with a drachm of Cinnabar.

Jan. 31st.—The pain was in no degree relieved; nor was the progress of the sore arrested.

Directed to continue the Pil. Hydrarg. and the same local treatment, and to take one grain of Opium every four hours.

February 1st.—The opium relieved the pain, but there was as yet no change in the appearance of the sore. She complained that she suffered from the fumigation, which she was directed to discontinue.

The quantity of Opium was diminished, so as to be taken only every eight hours.

3d.—To-day the gums showed signs of tenderness. There was a manifest improvement in the appearance of the sore, which was quite free from pain. The surrounding parts were less inflamed; the nymphæ less tumefied, and the colour less florid; the surface of the sore also was cleaner.

The Opium to be taken only twice in the day; the other remedies to be continued.

5th.—The surface of the sore was clean; the tumefaction and inflammation of the surrounding parts was nearly gone. The affection of the gums continues, but is moderate in degree.

Directed to omit the Opium altogether.

8th.—The solution of opium and the poultice were changed for a wash, consisting of a solution of the nitrate of mercury in lime-water. The progress of the sore to cicatrisation was regular, though not rapid. The mercurial action could not be kept up in the degree that was desirable, in consequence of the supervention of ulceration round one of the dentes sapientiæ, which had scarcely protruded from the gum. It was necessary to compensate the deficiency of effect by a prolongation of the course.

At the end of the month the sore was healed, and the Pilula Hydrargyri was continued as before, twice in the day, till the 14th of March; when, being perfectly well in all respects, she left the hospital.

## II. *Case of Phagedenic Ulcer, treated with Opium, both locally and generally.*

Sarah Starkey, ætatis twenty, was admitted into the Lock Hospital, on the 21st April, 1825, with a large foul sore, situated on the inside of the right thigh, not far from the pudenda. It was larger than a cleft orange, very dark and foul on the surface, and surrounded by an inflamed border of a dark red colour; the edges were tumid, and partially everted. Its progress was attended with

very severe and constant pain, which almost entirely prevented sleep at night. The ulcer appeared, by her description, to have originated, nearly three weeks before her admission, in what she supposed to be a common pimple. Its increase had latterly been very rapid, and the pain had been proportioned to the violence of its progress. She had also discharge, and a small sore on the labium pudendi.

She was directed to take one grain of Opium every four hours, and to apply to the sore lint dipped in an aqueous solution of Opium, which was covered by a common bread-and-water poultice.

22d.—The pain was subdued. She had obtained some sleep during the night.

23d.—She continued free from pain, and the aspect of the sore began to improve: the edges were less swollen, the progress appeared to be arrested, and the slough began to separate from the surface.

Ordered to take the Opium only once in six hours, and to continue the applications.

26th.—The surface of the sore was covered with healthy granulations, and the edges were disposed to cicatrise.

The Opium was directed to be taken only three times in the day.

28th.—As the sore continued to improve daily, and was considerably diminished in size, the Opium was administered only twice in the day.

29th.—The pain returned in the evening, and the sore again assumed a dark unhealthy appearance, which threatened a return of the sloughing.

To take the Opium every six hours.

May 5th.—The sloughing was soon arrested by the Opium, but the sore was languid: a thin layer of slough remained on it, which separated very slowly; and the granulations of those parts from which it had separated were very slow in their growth, and were neither florid nor vigorous.

She was ordered to continue the Opium, and to take, in addition, a pint of the Lisbon diet-drink daily.

12th.—A violent diarrhoea came on, which was supposed to be principally owing to the long administration of large doses of Opium. The Opium was accordingly omitted, and a small quantity of Tincture of Ginger was added to the Sarsaparilla. These changes answered the object, and all disorder of the bowels had ceased on the 14th; but the pain in the sore had returned with as much violence as ever, and it began again to slough with great rapidity. As it was evident that opiates were necessary, and the stomach and bowels would not bear the extract, the Tinct. Opii was substituted for it, in the dose of twelve minims every six hours. Under its use, the disorder of the bowels did not recur; the pain soon ceased; the sore again assumed a healthy aspect; and, as the state of the constitution improved under the Sarsaparilla, the granulations acquired vigour, and the cicatrisation proceeded

regularly. At the end of the month, the ulcer was reduced to the size of a shilling, but, from the great destruction of skin in the different attacks of sloughing, the progress was latterly more tardy, and it was not until the 21st of June that it was entirely healed.

*Case of Phagedenic Ulcer, treated principally with Cinchona and Sulphate of Quina.*

John Bourke, ætatis twenty-four, was admitted into the Lock Hospital, on the 14th of January, 1826, with an extensive ulcer in the right groin, formed by a bubo which had burst about a month before. The surface was unhealthy, and the edges were becoming jagged and irregular. There was another ill-conditioned sore on the scrotum, and also a primary sore on the glans penis. He appeared to have passed through a course of mercury before his admission; but, as the effect had been violent, it was uncertain whether it had been conducted with sufficient regularity. However this might be, the appearance of the sores, and the state of the general health, forbade the administration of mercury, at least for the present.

He was accordingly directed to take a pint of Decoction of Sarsaparilla daily, and to apply a Linseed Poultice to the ulcers.

On the 21st, the sores showed some disposition to spread. The tongue became furred, the pulse hurried, the skin hot, and the whole system greatly disordered.

He was directed to discontinue the Sarsaparilla, and to take the Haustus Salinus, with half a drachm of the Liquor Antimonii Tartarisati, and a drachm of Sulphate of Magnesia three times a-day.

24th.—The skin cooler, and the pulse somewhat less active; but the tongue is still foul. The sores have begun to slough.

To omit the Saline Medicines, and to take the Mistura Cinchonæ, with half a drachm of the Sulphate of Magnesia, three times in the day.—To apply to the ulcers Treacle spread on lint, and covered with a Bread Poultice.

28th.—The sores are rapidly extending by sloughing, especially that on the side of the scrotum. The tongue is not less furred, and is assuming a darker appearance. He is very restless, and gets no sleep, but does not complain of much pain in the sores.

To continue his medicines.

31st.—Both sores have been sloughing rapidly, and within the last few days they have extended to more than double their former size. There is little pain; the edge is not tumid or everted, but has a narrow border of yellow slough, surrounded by a circle of very pale-coloured inflammation, extending to the distance of little more than half an inch. The slough does not separate in a distinct mass, but gradually disappears as a fresh portion of skin is involved. It is as if the slough melted down into pus on the side of the sore, while it spread on the side of the sound skin.—This morning there has been hemorrhage from the sore in the groin, to a very considerable extent: which is not, however, sufficiently deep to have reached the larger blood-vessels. The pulse

is extremely depressed; the countenance pale; the tongue is becoming dark and dry.

Ordered to take an ounce and a half of the *Mist. Cinchonæ*, with a drachm of Tincture of Ginger, every six hours; and to apply to the sore lint dipped in a solution of Muriatic Acid, in the proportion of half a drachm of the acid to half a pint of water, covering the whole with a Linseed Poultice.—To take also at night fifteen grains of Dover's Powder, in Camphor Mixture.

February 3d.—The hemorrhage has not returned, but the sloughing continues. The bottom of the sore on the thigh looks cleaner as the cellular membrane is destroyed, and the muscles are exposed; but the edge spreads as before. The two sores have been broken into one, by the destruction of the skin which separated them. The tongue is still black, and the pulse continues much depressed.

Sulph. Quinina gr. ij. ; Ext. Gentian. q. s. tertia quaque hora cum haustu sequenti.—Infusi Rosæ ʒ iss. ; Acid. Sulph. dil. m. xij. M. Potassæ Supertart. ʒ ij. omni mane.

11th.—The sores have been spreading less rapidly; the tongue begins to assume a better appearance, and the appetite improves; but the pulse is still very weak.

18th.—The slough has now separated; the edges of the sores begin to show more activity, and to close in; the surface is red, but granulates slowly. The pulse still weak; the tongue quite clean, and the appetite good.

April 8th.—The sores have continued to heal, though slowly, from the great destruction of skin. The health is restored, the appetite good, and he gains flesh.

Omittatur Quinina.

The subsequent treatment offered nothing remarkable. The sores healed regularly, but were not entirely closed until the 21st of May.

#### FUNGIOUS TUMOR.

*Case of Fungous Tumor on the Back, arising from a Scratch.*  
Treated at ST. GEORGE'S HOSPITAL, by Mr. BRODIE.

JAMES BOURNE, ætatis fifty-four; admitted April 19th, 1826.—He has had a large cicatrix, in the situation of the present disease, between the scapulæ, for the last twenty years, originating, he says, from the severity with which he was flogged when in India. He never experienced any pain in this cicatrix, and his health was quite good, until he accidentally scratched himself with his fingernail about four months ago; at which time the part bled, and degenerated into a sore, which continued to spread under the dressings he employed, and in a month's time the present fungus began to project, attended with severe and lacerating pain, and considerable offensive discharge. During the last three months, the tumor has increased rapidly in size; the pain and discharge have been augmented, and he has lost flesh considerably.

At the time of his admission, there was a fungus about three



inches in diameter at its basis, and in some parts projecting about an inch and a half above the level of the neighbouring skin. The surface of the fungus was irregular, and divided into a multitude of small portions, giving the whole somewhat the appearance of a very large warty excrescence. The interstices of the fungus were filled with an adhesive discharge. The skin in the neighbourhood was of a dark red colour, and covered with a number of very small tubercular projections. It was thought that these might have arisen from the contact of the discharge which issued from the tumor, and therefore it was determined that the latter should be removed by operation, notwithstanding the diseased condition of the surrounding skin.

24th.—The tumor, with a small portion of the surrounding skin and a few fibres of the trapezius muscle, were removed by the knife. No considerable hemorrhage took place, and the surface was dressed with dry lint.

The wound healed rapidly, and the patient was discharged cured on June 7th; at which time the skin had regained its natural hue, and the tubercular prominences had nearly disappeared.\*

#### DISEASE OF THE TESTICLE.

*Case of Disease of the Testicle. Treated at St. GEORGE'S HOSPITAL, by Mr. BRODIE.*

HENRY LINE, twenty-six years of age, admitted into St. George's Hospital, July 12th, 1826.—The left testicle was enlarged to the size of a goose's egg, and of an irregular oval form. The tumor was ponderous, and for the most part hard to the touch; but in some parts there was an indistinct feeling of fluctuation. There was neither pain nor tenderness in the testicle itself; but there was a slight pain in the back.

The patient stated, that the enlargement of the testicle had begun three months ago, without pain; and that it had gradually increased, still without pain in the part itself, although he soon began to experience a slight degree of pain in the loins.

In order to ascertain whether there was really fluid collected in those parts, in which there was an apparent fluctuation, a puncture was made with a narrow sharp-pointed instrument; but no fluid was discharged.

Mr. Brodie was led to believe, from the history and symptoms, that the tumor was of such a nature as did not admit of relief, except from an operation. However, it was thought prudent to put the patient under the influence of mercury before an operation was finally determined on; and accordingly the following pills were prescribed:

Calomelanos gr. ij.; Pulv. Antimon. gr. j.; Opii pulv. gr. ss. fiat pilula ter die sumenda.

—These pills were taken for about a fortnight, and the gums were

\* A wax cast was made of the parts described in this case by M. DELESTRE: it is at present deposited in the Museum of the College of Surgeons.

made sore; but there was no diminution of the size of the tumor, nor any relief from the pain in the loins.

August 4th.—The testicle was removed in the usual manner, the vessels being secured by separate ligatures, after the division of the chord. Two or three days after the operation, there were symptoms indicating an inflammatory affection of the chest; but these yielded to the usual remedies, and at present (August 13th,) the patient is going on quite well, and the wound is healing.

On making a section of the testicle after the operation, the diseased structure was found to consist of two parts: first, a multitude of small hydatid-like cysts, containing serum, varying from the size of a seed of millet to that of a large pea; secondly, a grey firm substance, somewhat of a ligamentous structure, in which the hydatid-like cysts were imbedded, and to which they had a loose adhesion. It appeared, on the first inspection, as if the whole of the testicle had been converted into this diseased mass; but, on more minute examination, it was ascertained that the glandular structure of the testicle was entire, and in a perfectly healthy state, occupying every where the circumference of the tumor, and forming a thin layer on its surface. The epididymis was also in a perfect state at the posterior part of the testicle, and the spermatic cord was free from disease. There were no preternatural adhesions of the tunica vaginalis, and nothing more than the usual moisture on its surface.

#### INJURIES OF THE HEAD.

*Cases of Injury of the Head.* Treated at ST. GEORGE'S HOSPITAL, by Mr. JEFFREYS.

##### I. *Case of Deafness after Concussion.*

SAMUEL HUMPHRIES was brought to the hospital, February 8th, 1824, at eight o'clock in the evening, having just before fallen, in a state of intoxication, from his coach-box. There was a small wound in the scalp over the left temporal bone, and blood was oozing from the left ear. The bone was not denuded. He was stupid and insensible, which seemed to be as much the effect of drunkenness as of the accident. The lips of the wound were brought together with sticking-plaster; he was put to bed, and ordered to take a senna draught in the morning.

Feb. 9th.—Had slept soundly throughout the night, and was still heavy, stupid, and drowsy. Did not complain of pain; pupils of the eyes quite sensible to light; pulse quick and full; tongue white.

Twelve ounces of blood were taken from the arm; and he was ordered the following pills and draught:—Hydrargyri Submur., Pulv. Antimonialis, āā gr. v.; Conf. Rosæ, q. s. M. fiat Pilulæ duæ statim sumendæ; et post horas tres capiat Haustum Sennæ.

The pulse sunk after the bleeding, but in the evening it had again risen, and sixteen ounces more were taken away.

On the following day (Feb. 10th,) he was in all respects better:

he had no headache; his tongue was clean, and his pulse quick. He had been well purged: but he was dull and heavy when spoken to, and it was ascertained that he had lost the power of hearing in both ears. Several blisters were put on in succession behind the ears; he was frequently purged, and kept on low diet, but without much benefit. The wound in the scalp healed by the first intention, but he did not recover the sense of hearing; and towards the end of the month he left the hospital.

II. *Case of Fracture of the Cranium, with Extravasation of Blood on the Dura Mater, on the side opposite to that on which the blow was received.*

Anthony Baldwin, sixty-three years of age, was admitted April 5th, 1824, with a lacerated, contused wound of the scalp, three inches long, over the right parietal bone; the right ear was also lacerated and torn through: the bone was not denuded. The accident had happened by a fall down stairs, and, when picked up, he was insensible. The people brought him immediately to the hospital; and, on his arrival, he had nearly recovered his senses. The house-surgeon brought the lips of the wound together with sticking-plaster, and prescribed a Senna Mixture, to be taken every four hours till it operated. He passed a good night; but the next day (April 6th,) he complained of pain in his head, had a dry furrowed tongue, and his pulse was quick and full.

Twelve ounces of blood were taken from his arm; his bowels were kept open with the Senna Mixture, and low diet prescribed.

Under this treatment the headache was relieved; the wound had a favourable appearance; and every thing seemed to be going on well, until the seventh day, (April 12th,) when he fell into a stupid, half-comatose state; had a dry brown tongue, and a quick but not full pulse.

He was again bled to ten ounces; and had some more purging mixture, which operated freely.

He passed a restless, unquiet night; and on the following day, the eighth from the accident, he continued much in the same state of stupor: his pulse quick and intermitting; his tongue very dry; and he voided his urine involuntarily. Ten ounces more of blood were taken away; soon after which he became delirious, and so violent that three men could scarcely restrain him in bed. A large blister was applied over his head. In the evening, he was more tranquil and rational, and answered questions freely and sensibly. He passed the night more quietly than the preceding, and got some sleep; and the next day was in all respects improved.

On the following day, (April 15th,) he complained of a return of pain in the head; the pupils of the eyes were sluggish and inactive, and his pulse quicker than it ought to have been. He was again bled in the arm to ten ounces; immediately after which his pulse sunk very considerably. In the evening, his tongue was not so dry, and he appeared more sensible. But he had a restless uneasy night.

The next day, (April 16th,) he was still sensible when spoken to, and the wounds in the scalp and ear looked very well and promising: but his pulse was very low, weak, and intermitting; and his tongue dry and brown. In the night, he again became delirious, and was kept in bed with difficulty.

On the 17th, he lay in a dosing, stupid state; breathed with difficulty; and had a quick, feeble, intermitting pulse.

On the 18th, he had a severe attack of erysipelas over the face and head; was very low and exhausted; and in the night he died, being the fourteenth day from the accident.

The body was examined on the following day. On the side of the head opposite to the wound in the scalp, there was found an extensive fissure in the parietal bone, which descended through the temporal bone, and terminated at the cella turcica; it also passed across the sagittal suture to the middle of the right parietal bone. Upon the dura mater, on the left side under the fracture, was a deposit of coagulated blood, of the thickness of a dollar, and as much as two inches in diameter. The dura mater exhibited no signs of inflammation; but the tunica arachnoides was full of vessels carrying red blood; and between it and the pia mater there was a copious effusion of coagulable lymph, and a small quantity of serum. The brain was somewhat firmer than usual.—The upper bone of the sternum was discovered to have been fractured at its junction with the second bone; a circumstance which had not been at all suspected during life.

### III. *Case of Lacerated Wound of the Scalp, by which a very large portion of bone was laid bare.*

Admitted December 9th, 1824.—Jacob Littleboy, thirteen years of age, was thrown down by a cart, the wheel of which passed over the side of his head, and inflicted a large lacerated wound in his scalp. When brought to the hospital soon afterwards, the wound was found to extend from the top of his head, in a semicircular direction, across the left parietal bone, towards the base of the skull, and to have separated the scalp from the cranium, so as to lay the bone completely bare for a space as large as the palm of the hand. He had no symptoms of injury of the brain, was perfectly sensible, and had had no sickness. A quantity of gravel and dirt, which had lodged in the wound, was carefully picked out; the edges were brought together with sutures and sticking-plaster, and the whole covered with compresses and bandage, wetted with an evaporating lotion. The boy was put to bed, and ordered a dose of house-physic.

The next day, (Dec. 10th,) he complained of soreness in the head, and the scalp and eyelids were somewhat swollen and puffy; but in other respects he was very well. He had been well purged, and had little or no fever.

On the 11th, the swelling of the head was increased, and the eyelids were closed. On examination, the edges of the wound appeared to have united.

12th.—The edges of the wound had separated, and looked foul and undigested, and the swelling of the scalp had not diminished. His tongue was furred; he was hot, and slightly delirious at times.

A poultice of bread and water was applied to the head; and he was directed to take a grain of Calomel and five grains of Jalap every four hours, until the bowels should be well purged.

This medicine brought away a quantity of dark offensive stools, to the great relief of all his symptoms; and on the following day, (the 13th,) the swelling of the scalp was subsiding, the wound had a more favourable aspect, and he was sensible and nearly free from fever.

On the 15th, the wound was clean and granulating kindly; and on the 19th, the separated portion of the scalp had united to the bone. From this time every thing went on as could be wished; the wound healed very soundly; and he was discharged cured on the 19th of January.

#### IV. *Case of Fracture and Depression of the Frontal Sinus and the Orbital Process of the Os Frontis.*

Thomas Aldridge, sixteen years of age, was brought to the hospital, March 28th, 1825, at seven o'clock in the morning, having just before been kicked in the face by a horse which he was cleaning. He was stunned for about five minutes; but soon recovered, and was able to walk to the hospital. On his arrival, he was perfectly sensible and collected; but his countenance was blanched, and his pulse scarcely perceptible from loss of blood. On examination, there was a semicircular wound, corresponding to the shape of the horse's shoe, across the right eyebrow and root of the nose, of about one inch and a half in extent. The ossa nasi were broken to pieces and driven inwards; and there was a fracture of the superciliary ridge, extending into the frontal sinus and within the orbit, with very slight depression of the orbital portion of the superciliary ridge. The eye appeared to be rather more prominent than the other, and the pupil was somewhat larger, but it contracted readily on exposure to light. On sponging the wound before it was dressed, a small portion of medullary matter was perceived, about as big as half a pea. He had lost a good deal of blood from the wound and from the nose, but the hemorrhage was now stopped.

The wound was dressed lightly with lint and sticking-plaster, over which were placed compresses wetted with Spirit Lotion. He was put to bed; and ordered to take the Senna Mixture at intervals until it should operate.

At two P.M. he complained of pain across the forehead, and was beginning to be restless, but was quite rational: pulse eighty.

Twelve ounces of blood were taken from his arm.

At seven P.M. the bowels had not acted; and he was ordered a dose of Calomel and Jalap, which procured two copious evacuations; and at nine P.M. he had a clean tongue, cool skin, and quiet pulse. He slept nearly all night, but awoke occasionally in

a state of agitation and alarm, which was, however, of short duration.

On the following morning, (March 29th,) he was collected and quiet, but averse to answer questions or to be spoken to. He complained of slight pain in the forehead; his tongue was rather dry, and his pulse beat 108 in a minute. He was again bled in the arm, and the purging medicine was repeated. Towards evening he became restless, and began to talk rather incoherently. At half-past six, he suddenly became violent and unmanageable, with oppressed breathing, and immediately expired.

*Dissection.*—The fracture extended through the frontal sinus, and along the superciliary ridge into the orbit. The orbital process of the os frontis was broken and splintered, and some of the fragments had been driven through the dura mater, and were lodged, as well as some splinters of the æthmoid bone, in the substance of the anterior lobe of the brain. The ossa nasi and æthmoid bone were shattered to pieces.

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#### URINARY CALCULUS.

*Case of Urinary Calculus, removed by Dilatation of the Female Urethra, in a Patient treated at the WESTMINSTER GENERAL DISPENSARY. Communicated by T. WM. CHEVALIER, Esq.*

[WITH AN ENGRAVING.]

ANN F—, ætatis sixteen, a girl of small stature and feeble habit, with quick and irritable pulse, and every usual mark of a delicate constitution, applied to me, as Mr. COPLAND HUTCHISON's *locum tenens* at the Westminster General Dispensary, in January 1825. According to her mother's account, she had complained of occasional lancinating pains about the bladder, especially when she made water, for eleven years. She told me herself that this symptom, together with those of pain in the loins and reins, and the frequent appearance of blood in her water, had become so severe during the last two years as to render her life miserable,—more especially of late, from her having become liable to incontinence of urine. She had exhibited as yet no symptom of puberty; unless, indeed, a hard tumor, of irregular shape, and as large as a small walnut, in the place of the right mammary gland. She had been sounded at the Middlesex Hospital, about eighteen months since, and a stone was found in her bladder; but she then refused to submit to any operation. Her bowels of late had become obstinately costive.

On the 30th of January, I examined her a second time, in the presence of Mr. HARDING, when the calculus represented in the plate was distinctly to be felt, both with the female sound and by the finger introduced per vaginam.

At two o'clock in the afternoon, her bowels having been previously opened, the patient was placed upon her back on the bed; and, the smallest dilator urethræ being found considerably too

large to pass, I introduced into the bladder a phimosia dilator, and with this instrument I felt the calculus. The first attempt to open the blades by the action of the screw gave considerable pain, which continued to increase until their widest divergency, to the extent of three-fourths of an inch, was accomplished; viz. in the space of half an hour, at intervals of from two to three, or four, minutes. Some blood had oozed, and the sufferings of the patient were become exceedingly severe. Considerable force upon the screw was required after every pause, to effect further dilatation; and the sides of the urethra appeared as tense as although ready to tear.

The dilator urethræ was now introduced with the blades closed, in which position they composed a cylinder of half an inch in diameter. This instrument could not yet be passed into the bladder; for the blades of the former, as well as these also, were so insufficiently firm, that their extremities could not be separated within the neck of the bladder to nearly the same extent as their bases. The dilatation was now continued, therefore, *without* the neck of the bladder, to the extent of an inch; and afterwards this instrument was introduced, with the blades closed, into the bladder, to feel the stone; and the blades separated to their widest extent,—viz. to an inch and three-quarters. The pain, since the first introduction of this latter instrument, was as severe as can well be conceived, being as violent as any bodily suffering I ever saw endured under any circumstances, and altogether without remission. I now introduced my fore-finger into the bladder, not without difficulty, for the urethra contracted forcibly upon removing the distention by the dilator. I was happy to find that, notwithstanding the oozing of about two drachms of blood, the surface of the urethra was merely abraded; for the only assurance I had had hitherto of the urethra remaining untorn, was from constant attention to every sensation conveyed along the instrument, and from the continuing stress upon it. The instrument last mentioned being the largest I had with me, (for I was not aware of the insufficiency of the strength of its blades, especially as it had been used before in the extraction of as large a stone,) I now dilated the parts by expanding the blades, with more and more rapidity, in different directions; and by this means the urethra was enlarged to a considerably further extent than by their first expansion.

Although the calculus could now be felt with ease, and turned in any direction, the canal was found to be still too narrow (especially at the neck of the bladder, where the blades of the dilator yielded so inconveniently,) to admit of its exit; and I therefore continued to increase the distention by means of my fore-finger and the closed forceps, until at length, at half-past five o'clock, it became practicable to bring the stone into the urethra. After this was accomplished, however, it was not to be withdrawn without great difficulty; so much so, that the interior part of the lining

membrane of the urethra was brought down into view, and in a slight degree everted, and I was obliged, with my nail, to turn off its folds from several of the noduli represented in the plate upon the body of the calculus.

The patient, being extremely exhausted, was allowed to take a little wine and water. The urethra was abraded, not by the stone, but by the instrument, over which it had been so extremely tense, during the distention.

At seven o'clock, I prescribed *Tr. Opii et Vini Antimonii Tartarizati* aa gtt. xx.; and, in the course of the evening, my patient took half an ounce of Sulphate of Magnesia. The parts were frequently washed with warm milk and water, and anointed with lard, both internally and externally.

In the forenoon of the next day, the bowels had not been relieved; her tongue was much furred; the pulse 130, and hard; the skin hot; the abdomen tender as far as the umbilicus; the urethra very painful, from the constant flow of urine. She had drank freely of linseed-tea.

She now took four grains of Calomel, and, at intervals of four hours, two doses of Sulphate of Magnesia; and twelve leeches were applied to the abdomen, to be succeeded by poppy fomentations.

In the evening, the tenderness was increased, as well as the heat of skin and irritation in the urethra; but the pulse was softer, and more varying in frequency; and, as the leech-bites were still bleeding, and the aperients just beginning to operate, I left her for the night, prescribing only a perseverance in the use of fomentations.

On the morning of the next day, (February 1st,) the tenderness of the abdomen was completely removed; the leech-bites having continued to bleed gently for nine hours from the time they were applied. The bowels had been freely opened; the pulse was soft, varying from 120 to 130; the skin hot, but moist.

She was ordered to take four grains of Antimonial Powder every twelfth hour.—In the evening, the Epsom Salts were repeated.

Feb. 2d.—Temper more irritable; tongue white; pulse 120, and hard; abdomen not at all tender.

I allowed her to eat some fish; but ordered the Antimonial to be repeated every sixth hour.

—A very superficial slough appeared to-day at the orifice of the urethra: it came away on the morrow, leaving the canal, to all appearance, perfectly healthy.

3d.—From this date she continued to improve under the use of Antimony and *Extractum Hyoscyami*; with attention to her bowels, which were still obstinately costive.

On the 12th, she made about three ounces of urine by a voluntary effort; and, for the first time in her life, the catamenia appeared.

She made from a quarter to half a pint of urine on several occasions by voluntary efforts, on the 13th, the orifice of the urethra having nearly regained its ordinary dimensions; and on the 17th, she was to all appearance perfectly cured.

On the two following days, however, she suffered from occa-



sional incontinence of urine; and, on the 20th, retention of urine occurred, and continued for twelve hours, until at length a small slough came away, and, to my great disappointment, there ensued incontinence of urine almost complete.

Under the use of nourishing diet, of wine, and the mineral tonics, she gradually improved; at first, by recovering the power of retaining her urine through the greater part of the night, and then the ability to void it voluntarily sometimes during the day: it took upwards of three months, however, for her complete recovery from the incontinence, and a still longer period elapsed before she was able to retain above half a pint of fluid in the bladder, during the day; so that she became a strong healthy girl, and was fully formed, before the local effects of the disease and of the operation had entirely ceased. At length, however, she recovered completely, and has enjoyed the most perfect health for many months past; the tumor in the right breast having proved to be nothing more than an irregular development of the mammary gland.

The annexed drawing is made by measurement, and therefore accurately exhibits the size of the calculus, as well as its extremely irritating and irregular surface: its largest circumference is three inches and nine-tenths; its smallest circumference is three inches and nine-twentieths. On its section there appears a nucleus composed of lithate of ammonia, and oxalate of lime, of from three to four-tenths diameter. This is surrounded by a mulberry calculus, projecting in the noduli seen in the plate, and of unusual purity, as I am informed by Dr. PROUT, who has analysed the stone. The surface represented white in the drawing is composed of the triple phosphate, and its greatest depth is about one-seventh of an inch.\*

Before I conclude this communication, I may be allowed to offer a few remarks upon the account which I have given of the foregoing case. In the first place are to be observed the unfavourable shape and large size of the calculus; the retarded, or rather the obviated, maturity of the patient's form, which was so incomplete that the vagina itself was not half the size or capacity to which it was necessary to dilate the urethra. Her constitution, also, being rendered irritable, not only by the disease, but also by the prevention of the usual phenomena of her age; while her digestive organs had become habitually inactive, and her mind was in a state of complete despondency, in consequence of the afflicting circumstance of incontinence of urine.

Much consideration was given to her case before the operation was performed; and it was from the general, if not universal, truth, that severer pain for a shorter time is more endurable, and of less injurious consequence, than somewhat

\* See Medico-Chir. Transactions, vol. x. p. 389.

less severe suffering continued for a longer time, that I was induced to resolve upon as speedy an operation as could be accomplished without mechanical injury. In this resolution I was moreover confirmed, by an assurance that one of the first surgeons in this metropolis had expressed the above opinion, with intentional and direct reference to this operation; and also by the fact, that that gentleman's cases, as well as Mr. A. C. Hutchison's cases of this operation, had been performed in a very short time with perfect success. The experience of the profession on this point being so limited, it is not surprising that my instruments were less adapted to the individual case than they may be made; or that some perplexing circumstances occurred in a case so completely novel.

My object in publishing it is to prove that there is danger in dilating the female urethra too rapidly; and even greater danger than in inflicting the severest pain for many hours. For inflammation of the peritoneum from mechanical injury to a neighbouring part, is a manageable disease, in comparison to sloughing produced by such injury in an enfeebled and irritable constitution: and, indeed, I have heard of the case of a patient who died of extensive and uncontrollable sloughing, after this operation performed in two hours.

The benefit which my patient has derived, although perhaps more slowly obtained than it might be (after the experience of her case) in another, is yet most complete; and whereas her life was a burden to her, and also imminently endangered, she has now the full enjoyment of health.

I am sure, however, that no patient would submit to this operation, if previously aware of the suffering which was to be endured; unless, indeed, upon the alternative of certainly dying of the disease, after protracted torture, or of submitting to the evil of incontinence of urine, after the operation with the knife; and, judging from this single case, I am willing to express my opinion, that we are not justified in inflicting so much suffering (instead of proposing the operation by the *bistouri caché*), excepting by the fact that the patient must endure incontinence of urine, in all probability, for her whole life, if operated on by any other means than the dilator.

The evils of a disability to retain the urine are to a female so great, that even the chance of them may make it well worth her while to undergo any pain as an alternative: yet I would respectfully suggest to the profession, whether it may not be worthy of their consideration to perform the operation of lithotomy above the pubes, in preference to this operation,

in the cases of females? The operation of lithotomy above the pubes has succeeded over and over again; and, although it has failed often, may there not have been manifest and avoidable causes of its failure?

With proper management, it must be a safer operation in the female than in the male; and I know nothing to show that it might not be perfectly safe, and perfectly successful—while it is only of a few minutes' duration.

20, South Audley-street; July 18th, 1826.

#### DISEASE OF THE HEART.

*Case in which numerous small Cysts, some of which contained Pus, and portions of Lymph, were found in the Ventricles of the Heart. Treated at ST. GEORGE'S HOSPITAL, by Dr. YOUNG.*

JULY, 1826.—Ann Goodall, ætatis twenty; has been subject for ten years to occasional palpitation of the heart and sensation of choking in the throat, with pain in the left side of the thorax, extending to the back and left shoulder, and accompanied with vomiting. The attack commenced with sense of obstruction at the scrobiculus cordis, rising to the left shoulder, and descending the arm to the veins and little finger of the left hand. At first, these paroxysms occurred very rarely—once only in several months, and did not continue more than a hour or two at each time. Within the last two years, they have become much more frequent. In the intervals, she reports that she was perfectly free from ailment.

Since Christmas last, these attacks have increased in frequency and violence, and she has suffered four weeks, with only one intermission, from the present attack. *Pulse above two hundred*, occasionally too rapid to be counted; with throbbing of the carotid arteries communicated to the veins, through which the rapidity of the circulation is remarkably visible. The catamenia have not appeared, for the last seven months. She sleeps only on the right side, and with her head raised. Burning heat is felt over the left side of the chest, with a sensation of great anxiety at the præcordia. Skin cool; no thirst; tongue clean; bowels costive; sleeps ill.

It is worthy of remark, that during one interval of twenty-four hours, which took place while she was in the hospital, the pulse was ninety, and the symptoms greatly abated. With this exception, however, the symptoms continued to increase in violence until a few days before her death, when she became insensible, with occasional screaming and convulsions, particularly of the muscles of the upper extremities. The lower extremities became œdematous, and gangrene began to appear on the feet; and she died, August 9th.

*Dissection.*—The feet and legs were in a state of mortification,

with large vesications on the surface, and œdema of the whole subcutaneous texture of both limbs, as high as the pelvis.

The lungs were more solid than usual, and contained a large quantity of watery fluid.

The heart was rather large, and fatter than is generally the case at so early an age. On opening the right ventricle, a quantity of solid substance was perceived, the nature of which it was at first difficult to discover, as it had some of the appearance of coagulated blood; but it was evident that a part of it only was the result of coagulation after death, and the remainder looked more like the contents of an aneurismal sac. On more accurate examination, however, it was found to consist principally of effused lymph, in masses of various shapes and sizes, and in different stages of formation; the colour being for the most part a brownish yellow, but in some parts darker, as if mixed with blood. Many portions were loose and detached, but others adherent to the texture of the heart. Some formed distinct globular cysts, varying from the size of a pea to that of a small walnut; one cyst of the latter size being situated at the bottom of the ventricle. When these were cut open, the inner surface was reticulated, (in the same manner as may often be perceived in abscesses in the liver;) and some of them contained a few drops of pus, while others were entirely empty. The greater part of the lymph, however, was in solid masses, easily torn or broken by pressure. The lymph was most abundant at the lower insertions of the fleshy columns of the tricuspid valve, but extended also into every hollow and sinus formed by the reticulated texture of the sides of the ventricles, in the lower half of its cavity, so as to make it doubtful, on first cutting the substance of the heart, whether the lymph and pus were situated in the cavity of the ventricle, or whether they were in small cells in the muscular texture. But the lymph could every where be raised, so as to show the smooth surface formed by the serous lining of the heart, except in one or two places, where it was doubtful whether there was not a slight abrasion of the membrane; though it seemed, on the whole, more probable that this appearance arose from a firmer adhesion of the lymph, with which a portion of the membrane had been also raised by the handle of the knife.

In the left ventricle, an exactly similar effusion of lymph was discovered, but in smaller quantity.

On making a longitudinal section of one of the pillars of the mitral valve, no distinct muscular appearance could be found, but a yellow substance was seen, in which fibres were only partially evident, between which substance and the serous membrane of the heart a small quantity of blood had recently been effused. In the upper part of the left ventricle, near its junction with the auricle, a considerable portion of the muscle was also partially disorganised, but in a smaller degree; the yellow substance being here in granules, mixed with the fibres, and with spots of effused

blood; and a branch of the coronary artery could here be seen nearly obliterated by coagulation of the blood within it. A few smaller portions, of a similar appearance, were also seen in other parts of this as well as of the right ventricle.

The brain was natural in appearance, except in the upper part of the left corpus striatum, which was softened and of a yellow colour to about half its depth; and the circulation in the internal carotid artery of the same side must have been completely obstructed by a firmly adherent coagulum, which was found within it at the side of the sella turcica. The dura mater was much more opaque than usual.

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*Case in which two small Cysts were found in the right Auricle.*

The EDITOR was present at the examination of a body at the Edinburgh Infirmary, in 1812, by the late Dr. JOHN GORDON, in which two cysts were found in the right auricle of the heart, in a middle-aged man. One was flat, and applied over the auriculo-ventricular orifice; the other was of a globular form, and about the size of a common marble. Both appeared to consist of concentric layers of organised lymph, about the thickness of a half-crown piece: the globular one was filled with a dark-reddish fluid; the other was empty, but appeared as if there had formerly been a cavity in it. These must have caused great impediment to the circulation, as, on the contraction of the auricle, they must have produced an effect somewhat similar to that of the common globular valve.

The preceding case may, perhaps, throw some light on the manner in which such bodies are formed; as it is probable that, in this case, the cysts were originally in contact with the surface of the auricle, and had become detached, from the motion of the parts.

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NERVOUS AFFECTION.

*Case of an Affection of the Nervous System, which exhibited some unusual Phenomena.* Treated at the MIDDLESEX HOSPITAL, by Dr. HAWKINS.

ELIZABETH SMALL, aged twenty-one, was admitted into the hospital on the 28th of February, 1826, with severe headache accompanied by giddiness, under which she had laboured for three weeks, and for which, previous to her admission, she had been bled twice from the arm. The relief from these bleedings was inconsiderable, and of very short duration.

Some days after her admission, symptoms of paralysis began to show themselves, which were progressive in spite of the remedies employed. The bowels were well opened; leeches were applied to the temples; cupping and blistering to the back of the neck; and friction with liniments was employed to the paralysed parts. Various stimulant antispasmodics were subsequently administered, but with little or no effect in palliating the symptoms. It was now

determined, as a *dernier ressort*, to affect the system with mercury; but this was accomplished with difficulty: the gums were sore for two days only, and no benefit resulted from the remedy. On the 22d of April, a seton was inserted into the nape of the neck; and she was discharged on the 2d of May, much relieved.

We relate this case on account of the paralytic symptoms, which were exceedingly curious and interesting, as well in a physiological as in a pathological point of view. The left arm and leg were partially paralysed, (indeed, the power of motion did not appear to be quite deficient in any part,) and had lost much of their natural sensibility. The muscles did not combine in their actions, and the will had but an imperfect influence over them; so that the power of directing the foot or hand was much impaired; she walked with difficulty, and dragged the affected leg after her.

But the most remarkable circumstance was, that, whilst the side of the face corresponding with the paralysed side of the body retained all its powers and endowments in a perfect degree, those of the opposite side were lost. The sensibility of the right side of the face was deficient, and she had no power of retracting this cheek. This was well seen when she made an attempt to blow her nose or whistle: the cheek then became convex, and the air escaped by the side of the mouth, in consequence of the want of muscular resistance. There was very little motion in the nostril of this side, and the little which was observed appeared to be derived from its connexion with the other ala: it could not be drawn down and narrowed, as in the act of smelling. She could not close the right eyelid: it fell over a part of the cornea, which it appeared to do by its own weight; thus exhibiting the appearance technically termed *ptosis*. The winking motions were lost: on threatening the eye, no motion of the lid was observed, excepting a slight tremor, in sympathy with the other eyelid.

The senses corresponding with the paralysed side of the face were all affected. The acoustic nerve did not perform its office, and the sense of hearing on this side was very imperfect. The state of the olfactory nerve was not so easily examined; for, as smelling is a compound operation, so the paralysis of the portio dura interfered with our observations. But the most curious phenomenon was that exhibited by the gustatory nerve: the sensibility of the tongue on this side was not destroyed, but the finer sense of taste was quite deficient; thus countenancing the opinion that, if taste is merely a modification of touch, it is, perhaps, of a more delicate and refined nature. The power of motion in the tongue communicated by the ninth nerve was impaired. We were informed that the right side of this organ had been formerly paralytic: this, however, was not the case when in the Middlesex Hospital; she could move it to either side, and this might appear at first view to be conclusive. But the finely regulated motions of the tongue, necessary for perfect and distinct articulation, were deficient: she articulated imperfectly, and babbled like a drunken

person; or, to use a common expression, her tongue appeared to be too large for her mouth.

The state of the eye presented many curious appearances. The retina manifested very little sensibility to light: thus, the stimulus to the action of the recti muscles was removed, and the eyeball was no longer under their control, but was delivered up to the obliqui, and a confirmed squint resulted. She stated that, when her sight in this eye first began to be impaired, she had double vision; but this gradually subsiding, was followed by a loss of sight in this eye.

In order to ascertain whether the motor oculi was implicated, it was necessary to close the sound eye, and thus to call the attention of the patient to the direction of the eye affected; by this method the recti were brought into action. It was now evident that the recti muscles, with the exception of the abducens, had much of their power remaining: the latter muscle, however, appeared to be completely paralysed. The inferior oblique muscle seemed also to be only slightly affected; for the eyeball was turned up in unison with that of the opposite side, although less perfectly.\* When the left eye was open, the right and weak eye was not used. The vision was single, as in common cases of squinting.

It seemed not improbable that double vision would again be produced when the healthy action of this eye should be about to be restored, should this fortunate result ever be accomplished. This we afterwards found was actually the case.

Another circumstance worthy of remark was, that this patient was unconscious of her inability to move the right side of her face, until it was pointed out to her; and this seems invariably to be the case in all those instances where the portio dura and the fifth nerve, or the fifth nerve alone, are affected: that is to say, in all recent cases. Those labouring under this affection, when informed of the loss of power in their faces, are much chagrined, especially if it be put to the proof by looking in the glass. The above circumstance forms a good illustration of Mr. BELL's views of the Nervous Circle, lately published in the *Philosophical Transactions*; and, indeed, the whole case becomes very interesting when considered with reference to his doctrines.

To account for the paralysis of the face and body being on different sides, is perhaps impossible. LIEUTAUD, WINSLOW, and other anatomists, have indeed described the decussation of the pyramidal bodies, and VICQ D'AZYR that of the spinal marrow; all of which every accurate anatomist acknowledges. But the decussation of the brain remains still to be proved; and it is only by accurate observation that we are likely to gain any insight into this obscure subject.

\* See Mr. BELL's remarks on the use of the Obliqui, in his *Exposition of the Nervous System*.

## INJURIES OF THE THORAX.

*I. Case of Fractured Ribs, followed by extensive Emphysema—  
Treated at the MIDDLESEX HOSPITAL, by Mr. BELL.*

J. BOYD, ætatis thirty-eight, was brought to the hospital on the 29th of March, about twelve o'clock at night. The people who brought him stated that he had been found lying in the street, unable to move : he told them that he had been run over by a carriage.

He complained much of his chest, and his breathing was laborious. On pressing the ribs of the left side, several of them seemed to yield ; and at each motion of the body a considerable crepitus was felt. In short, it appeared as if nearly all the ribs on the left side had been violently stove in. Although it was evident that several ribs were broken, the exact number could not be ascertained, in consequence of the cellular membrane being already puffed up with air, which had escaped from the lungs, and which was rapidly extending to the other parts of the body. He had great difficulty in breathing, and his pulse was very feeble.

Soon after his admission, the breathing becoming more oppressed, and the pulse rising, an attempt was made to take blood from the arm ; but this was rendered difficult by the veins being, as it were, buried and obscured by the emphysematous state of the skin. The quantity of blood thus obtained was small, and afforded but little relief.

The emphysema continued to spread. The loose cellular tissue of the eyelids became so much distended as to close the eyes, and the face was so puffed up as completely to destroy the general outline of the features. The difficulty of respiration increasing, he was bled largely from the temporal artery, until faintness was produced ; but, as this in no way relieved the symptoms, Mr. Bell was sent for. He immediately saw the necessity of doing something to relieve the oppression, and suspecting that air was collected in the left cavity of the chest, and encroaching upon the opposite lung, he determined to make an opening into the thorax. He made an incision upon the upper edge of one of the fractured ribs, and, puncturing the pleura, dilated the opening with a bistoury. There was an immediate and forcible rush of air from the chest ; insomuch that it almost blew out a candle held before the opening. The breathing was quickly relieved, and even the tumefaction of the face was much lessened.

A few hours after this, the respiration again became laborious, and relief was again obtained by clearing the wound of the coagulated blood with which it was blocked up. It was necessary to repeat the operation at midnight.

Next day (30th), his breathing was easier, but he was troubled with a tickling cough : the expectoration consisted of a glairy mucus, slightly streaked with blood, but there was none of that frothy appearance so common in cases of this kind. A bandage was applied lightly round the thorax in the morning, with a view



of steadying the fractured ribs; but the difficulty of breathing was so much increased by it, that it was found necessary to remove it in the afternoon. The bowels were kept open, a saline draught, with antimony and compound tincture of camphor, was administered every six hours; and blood was abstracted as often as the pulse rose sufficiently to warrant it.

On the following morning, the emphysema had diminished, and he continued apparently to improve; but towards afternoon the breathing again became more difficult, and, notwithstanding the free egress afforded to air and extravasated fluids, the oppression continued to increase, and he died in the evening.

*Dissection.*—On examining the body, ten ribs on the left side were discovered to be fractured, three of which projected into the cavity of the chest. Much blood and serum were found in the bag of the pleura on this side; and, on carefully examining the lungs, a laceration was discovered in their texture. The bronchiæ were inflamed, and the cellular structure of the lungs was gorged with blood. A blush of inflammation was general throughout the lining membrane. There were bands of lymph uniting the pleura pulmonalis to the pleura costalis, but these were evidently caused by previous inflammation. The same marks of former pleuritic attacks were found on the right side; which in other respects was natural.

In noticing this case, Mr. Bell observed, that, when emphysema takes place, it is either from the ribs being pressed in upon the lung, or from the lung itself being abraded by the motion of the fractured ribs. In the case under consideration, the ribs were so extensively fractured as to render it almost impossible for the lungs to escape; for three of the fractured ribs projected into the cavity of the thorax.

When the texture of the lung is ruptured, the air escapes into the bag of the pleura during inspiration; and during expiration the air is forced through the wound of the pleura by the side of the fractured ribs, into the common cellular membrane; so that the skin of the whole body is often puffed up in such a degree as to make the patient appear twice his natural size.

Such an appearance is very alarming, both to the patient and to the surgeon; but still there may be little immediate danger, and the respiration may be performed with comparative ease. But, if the air which escapes from the lung does not get a free passage into the general cellular membrane of the body, it will be confined to the cavity of the chest. Under these circumstances, there is great danger; this side of the chest becomes so distended with air, that it not only compresses the wounded lung, but it may so press the mediastinum to the opposite side as to encroach considerably upon

the other cavity; whilst the diaphragm is at the same time pressed down, and impeded in its action.

The left lung being wounded, as in the present instance, it becomes collapsed, and the respiration must be carried on by the right lung only; but, if it be impeded by former disease, suffocation then becomes imminent; or if, by the distention of the left cavity with air, the mediastinum be pressed over so as to encroach on the right side, the same danger will be threatened. That this was the condition of the patient in the case before us, was proved by the sudden rush of air from the cavity when punctured; and that the right lung was thus relieved from pressure, and allowed to play freely, was distinctly shown by the immediate relief the patient experienced. Had the surgeon been satisfied with the common practice of general bleeding, and of scarifying the cellular membrane, the patient must have died suffocated; for the scarifications could only have allowed the escape of air from the cellular membrane.

In some cases, the cellular membrane may be but slightly emphysematous, in consequence of the wound of the chest being of a valvular character. Under such circumstances, great oppression of the breathing takes place, and the sufferings of the patient are often of the most distressing kind: his countenance is expressive of extreme anxiety; it exhibits that frantic look which denotes the dread of immediate suffocation.

The presence of air in the general cellular membrane is not in itself a source of danger, as was formerly supposed: indeed, it is remarkable how rapidly it is absorbed. Thus this patient, whom we saw on his admission bloated and swelled to a great size, became afterwards reduced to a state of apparent emaciation.

But still it is natural to inquire, why the patient sunk at the time he did, and after he had been so much relieved? This must be attributed not to the emphysema, but to the inflammation of the lungs and pleura; an almost inevitable occurrence where so extensive an injury has been inflicted in so important a part.

The following cases will serve to illustrate other forms of injury of the thorax.

*II. Case of penetrating Wound of the Chest, with a fractured Rib.*  
Treated at the MIDDLESEX HOSPITAL, by Mr. BELL.

Michael Harrington, ætatis forty-five, fell from a ladder (Nov. 13th, 1823,) on the spikes of a railing, one of which entered his side: he hung in this situation until lifted off by some workmen. He was immediately brought to the hospital.

There was a wound below the inferior costa of the right scapula, through which the air rushed violently. On introducing the finger into the wound, the direction of which was upwards and forwards, a rib was found to be fractured, and the finger passed easily into the cavity of the chest. The pulse was quick and full; his breathing laborious; and his countenance was dark and livid, and expressive of great anxiety.

He was immediately bled to twenty ounces; the integuments were brought together, and retained by adhesive straps; a compress was put over the wound, and the thorax was swathed with a bandage.—A strong purge of Calomel and Jalap was ordered to be taken immediately.

In the evening, the difficulty of breathing was very great; the pulse was slow and oppressed. He was again bled, to faintness. He lay on his right side, (the one injured.)

Next day, his breathing was easier; there was no emphysema.

He was now ordered to take a Saline Draught, with the Acetate of Ammonia, three times a-day.

On the sixth day, the adhesion of the wound had so far taken place, that the opening into the chest was completely closed. His cough has been very slight, and the expectoration has not been more copious than before the accident.

The cure proceeded very favourably under the use of free depletion, and on the twentieth day he was so far recovered as to request to be allowed to leave the hospital. He was shortly after dismissed, (December 23d.)

Mr. Bell remarked, that the speedy and favourable termination of this case arose from the circumstance of the wound having taken on the adhesive process, and thus preventing the extension of inflammation through the cavity of the chest;\* and that the frequent and effective blood-lettings, by preventing inflammation, must have greatly assisted in bringing about such a result.

### III. Case of fractured Rib, with an external Wound. Treated at the MIDDLESEX HOSPITAL, by Mr. SHAW.

William Yateman, a bricklayer, aged twenty-five, was brought to the hospital on the 10th of June, 1826. He stated that he had fallen from a ladder, and struck on a spike of the railing beneath him. There was a wound near the inferior margin of the right scapula, just below the axillary cavity and the inferior edge of the latissimus dorsi: it was of a size sufficient to admit with ease the fore-finger, which was readily passed forwards, and was then found to be closely in contact with the axillary artery. The third rib was discovered to be fractured near its junction with the cartilage. On introducing the finger in the opposite direction, it passed behind the scapula. No air escaped from the wound, nor

\* This subject is well illustrated by Mr. HUNTER, in his chapter on Adhesion.

was there any emphysema. The respiration was difficult, and attended with pain; the pulse ninety-six, full and strong.

Eighteen ounces of blood were taken from the arm, which produced syncope. The edges of the wound were brought together with adhesive straps, and a bandage was put around the chest.—The bowels were well opened; and he took Saline Medicines, with Tartarised Antimony, in nauseating doses, three times a-day.

Next morning (11th), the breathing was not much relieved; pulse ninety-two, full and strong; tongue covered with a brownish fur; bowels confined.

He was bled till faintness came on, and purged with Senna and Salts.

In the afternoon, the pulse having again risen, the bleeding was repeated; and in the evening, as he complained of some pain in the left side, twelve leeches were applied, which gave him great relief.

He was likewise ordered to take, Opium gr.  $\frac{1}{4}$ ; Antimon. Tartar. gr.  $\frac{1}{4}$ ; Calomel gr. ij. every six hours.

On the 13th, he complained of pain in the chest and cough; and was again bled until syncope was produced.

On the 15th, the wound had begun to suppurate, and discharged a small slough. He was somewhat better; but the pulse still continued full and strong, and the cough distressing.

The bleeding was repeated; and the Calomel, Antimony, and Opium were given at night only; while a Demulcent Draught, containing Compound Tincture of Camphor, was administered three times a-day.

Next day, the cough and pain in the chest, although less, were still troublesome; and his pulse, though not so strong, was still full.—The bleeding was again repeated.

From this period he improved. The wound long continued to discharge, but was completely cicatrised by the 7th of July, when he was allowed to go out. Having committed some excess, his cough returned on the 9th: this, however, was quickly removed by a blister on the chest; and he was discharged, perfectly recovered, on the 18th of July.

It is unnecessary to add, that this man owed his recovery entirely to the active antiphlogistic means employed; having lost above eighty ounces of blood in the course of a few days.

#### INFLAMMATION OF THE ABSORBENTS.

*Cases of Inflammation of the Absorbents, cured by the Application of the Lunar Caustic.* By JOHN HIGGINBOTTOM, Esq.

It is my intention to request the favour of you to insert in your Journal such observations as I may make, from time to time, in my investigation into the efficacy of the application of the lunar caustic. In my first communication, in your Number for May, I described the effects of the lunar caustic in certain cases of local inflammation. I have now the pleasure of sending you an important application of this

remedy for the cure of that most painful and alarming affection, *inflammation of the absorbents*.

CASE I.—Mrs. H—, aged thirty-four, had a swelling similar to a boil on the fore-arm near the wrist, the centre of which had a vesicular appearance; and, on removing the loose skin, presented a small ulcer, with highly inflamed and irregular edges, surrounded by inflammation. The absorbents were inflamed on the inside of the forearm, nearly to the axilla. Mrs. H— could assign no cause for this affection, which had been coming on for four or five days. She complained of feeling unwell and feverish.

The lunar caustic was applied to the ulcer, and slightly over the surrounding inflammation, along the course of the inflamed absorbents, and on the surrounding skin wherever there was any swelling. A purgative, with blue-pill and infusion of senna and salts, were administered.

On the following day, the inflammation was observed to be completely checked in its progress. The patient reported, that, in about half an hour after the application of the caustic, she experienced sensible amendment; that the arm became much cooler and easier, and it remained so during the night.

On the second morning, there was increased heat of the parts where the caustic had been applied, and slight vesications on the parts which had been before most inflamed,—viz. along the absorbents and around the ulcerated part. The vesicles were opened with a needle, and a puriform fluid was evacuated; and afterwards the parts were exposed to the air to dry.

On the third day, there was vesication nearly all over the parts which were previously inflamed; but on the fourth day no vesication remained: the cuticle was peeling off, leaving the parts free from inflammation. The eschar appeared to be adherent to the ulcerated part.

On the fifth day, there was a slight discharge from under the eschar on the ulcerated part, which continued for several days; afterwards the eschar became adherent. From this time no further attention was required.

CASE II.—Ann Shipham, aged eleven years, had a fall upon the elbow, about a fortnight ago, which caused a wound about the size of a sixpence: it was neglected till it began to inflame, when her parents dressed it with some sticking-plaster, which produced increased inflammation.

At the time she applied to me, the sore on the elbow was very much inflamed and irritable, and surrounded with inflammation to the extent of an inch and a half; the absorbents were inflamed, and presented well-marked red lines up to the axilla, where there was an enlargement of the glands, attended with great tenderness. The patient complained of shivering, the tongue was furred, and there were headache and loss of appetite.

I wished to try the effect of the caustic without using any other

means whatever, so that I ordered her no medicine. I applied the caustic along the inflamed absorbents, over the tumor in the axilla, and slightly over the wound and the surrounding inflamed part. I then applied gold-beater's skin over the ulcer; the other parts were exposed to the air, and directed to be kept free from covering.

On the following morning, I learnt from my patient that she had had a restless night, and some smarting pain; her countenance, however, was improved; and, though the tongue still remained furred, she expressed herself as being much better, having had no headache. There was some vesication on the parts most inflamed, with some tenderness, but no other pain; that along the inflamed absorbents and in the axilla having entirely subsided. I made no opening into the vesications.

On the second morning, she made no complaint: the tongue was quite clean; there was no tenderness on pressure in the axilla, nor any fluid under the vesication, except a little in the most dependent part near the elbow. The cuticle above was shrinking; the eschar remained adherent on the wound from the fresh application of the caustic.

On the third morning, she appeared quite well.

On the fourth morning, the tongue had become white, and I directed a little opening medicine. The arm remained perfectly well.

I might not have sent these two cases, but for the reasons already given in my former paper,—viz. that others may be induced to make similar trials; and for the fact that such cases are not of very frequent occurrence, so that much time might be lost by the delay of publication.

For the same reasons, too, I here add a case of *diffused phlegmonous inflammation*, equally successfully treated by the caustic, and perhaps not of less interest than those just given.

CASE III.—Miss —, aged fourteen, was brought to me with considerable swelling, hardness, and redness of the skin, seated in the ham, and extending along the back part of the thigh and the calf of the leg, which had been increasing for four days. No cause could be assigned for this affection. The patient was feverish, and complained of feeling generally indisposed. The inflammation had a phlegmonous character.

I applied the lunar caustic lightly over the whole surface of the inflammation, the part being previously moistened with water.

It may be necessary to note here, that I always apply the caustic in the solid form, and find a slight application sufficient, if it passes over every part of the inflamed surface. On the inside of the hand and of the feet, where the cuticle is thick, a freer application may be made, as vesication does not so readily take place; but even in these parts I have not found it necessary to use it very

freely. I always remove any moisture which may be left upon the part with a little linen or lint, so as to prevent its running upon any neighbouring parts.

I had directed my patient to see me the following day, but three days having elapsed without hearing from her, I sent to her, and was informed by her mother that she did not think it necessary to come again, as the patient was nearly well. On seeing her, I found no vestige of inflammation or swelling. A slight vesication had been caused the day after the application of the caustic, for which the mother had applied a little simple ointment; the cuticle was separating in some parts, leaving the surface white. My patient had experienced no pain from the application of the caustic, and only a little heat, occasioned by the vesications.

In five days, the cuticle had nearly all separated, and the patient was quite well.

I would here observe, that I have no idea that the two first of these cases could have been so cut short by any other known means; or that the third could possibly have been prevented from ending in suppuration. I have stated these effects thus strongly, but simply, in order that a remedy so manifestly important may not be overlooked.

My views respecting the efficacy of the application of the lunar caustic in certain cases of inflammatory affections, seem to derive great support from the observations of Baron LARREY relative to the effects of the actual cautery; an account of which you have given in your Number for April.

Nottingham; June 6th, 1826.

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#### COMA.

*Two Cases of Coma following the sudden Retrocession of Ptyalism; one of which was cured by reproducing the Salivation.* By R. MACLEOD, M.D.

SOME years ago I attended an elderly lady, who became profusely salivated by bluepill, small doses of which had been administered for an hepatic affection. The ptyalism continued, with little change, for eight days, notwithstanding the internal use of diluted sulphuric acid and neutral salts, and the local application of an alum-wash. At the end of this period, and without any obvious cause, the secretion became suddenly diminished, and entirely disappeared in the course of a day. Simultaneously with the suppression of the salivation, she complained of drowsiness: this rapidly passed into coma, and she died on the third day, notwithstanding the use of local and general bleeding, blistering, and purging.

The entire failure of these means in affording any degree of relief, induce me to think that, under similar circumstances, a

different method might be employed, with more chance of success. I submit whether the following case does not in some degree justify this idea.

July 19, 1826.—James Bond, aged forty-nine, a painter, residing at No. 4, Bird-in-hand Court, Long Acre, a fortnight ago was attacked with colic, to which he has been occasionally subject for several years. The disease was treated with calomel, in doses of five grains, over-night, followed up by castor-oil next morning, in such quantity as to make the bowels act two or three times each day. Under this plan the colic soon disappeared; but his mouth began to get sore, and at the end of a week he was profusely salivated, blood being occasionally mixed with the saliva. He used an alum gargle, and took neutral salts; notwithstanding which, his mouth continued very sore for several days. Yesterday morning it was observed that the salivation was much diminished, and the patient, thinking himself better, walked out in the evening, for the first time since his illness. He was found soon after, at the end of the court in which he lived, (a distance of only a few yards,) leaning with his back against the wall of a house. On being spoken to, he did not answer, and was carried home in a state of insensibility. Mr. WADE, Apothecary to the Westminster Dispensary, was sent for, who had him cupped on the nape of the neck, to the extent of twelve ounces, and ordered a purgative enema.

*Present state.*—Noon.—He is lying on his back, with a vacant expression of countenance; the mouth is slightly drawn to the left side; the pupils are dilated, but contract on turning his face to the light. He does not answer questions, though put to him in a loud voice, nor does he show any sign of hearing them. When his limbs are pinched, or otherwise incommoded, he moves them. The salivation (which I had observed to be profuse the day before yesterday,) has entirely ceased. Tongue white; bowels acted twice during the night, involuntarily; pulse eighty, full and soft; skin cool; urine passed unconsciously, but, so far as can be ascertained, natural.

Habeat quamprimum Calomelanos gr. x.; et post horas tres Infusi Sennæ ʒ xij. cum Magnesiæ Sulphatis ʒ ij.—Repetatur Haustus secundâ quâque horâ si opus sit.

Evening.—Bowels have been opened three times: no change in the symptoms.

Applicetur Emplast. Lyttæ nuchæ.—Repetatur Haustus Sennæ cras manè.

20th.—Bowels continue open. Blister has not risen. No change in the symptoms.

Repetantur Calomelanos gr. x. quamprimum.—Omittatur Haustus.

21st.—Gums becoming sore, and some saliva runs from the corner of the mouth. Bowels have acted twice to-day. When spoken to, he evidently hears, and seems to understand what is said; but does not speak, although he makes an apparent effort to do so.

Omittantur medicamenta.



22d.—Salivation fully established. Answers, Yes, or No, to questions admitting of a direct reply; makes known his wants by signs; and has taken some tea.

It is unnecessary to continue daily reports of the case, as from this time the patient progressively improved, and all the symptoms gradually disappeared. The salivation was not so profuse as that which preceded the attack of coma: no gargle was used; and it gradually went off in five or six days. The bowels continued to act regularly without medicine; and he returned to his work the beginning of August, apparently as well as before his illness; but his wife thinks that his mind is not so completely restored as his bodily health.

Should the indication which was here acted upon be adopted by any other practitioner, under similar circumstances, perhaps a more speedy method of restoring the salivation might be preferred,—as by rubbing calomel on the gums, or by fumigation. The circumstance which induced me to give the calomel as above mentioned, was the fact of its having so readily induced ptyalism in the first instance.

*Henrietta-street, Cavendish-square; August 10, 1826.*

#### LITHOTOMY.

*Cases illustrative of the different Methods of Operating for the Stone.* By MM. DUPUYTREN and SANSON.

A TRIAL has recently been made at the Hôtel Dieu, in Paris, of the comparative merits of different methods of operating for the stone. M. Dupuytren undertook to perform the transverse or bilateral operation; M. Breschet, the lateral operation of Frère Côme; and M. Sanson adopted the rectovesical operation, which has of late been very frequently employed in Italy by Vacca Berlinghieri. Each of these methods of operating were put in practice *alternately*, and therefore without any selection of cases.

The operation, as performed by M. Dupuytren, has been described by him in a *Mémoire* laid before the Académie Royale de Médecine. The following is an abbreviated account of it:—The instruments required are a common staff, a bistoury, and a lithotôme, the form of which is nearly similar to that of Frère Côme, but it contains two curved blades, and these are made to separate in opposite directions by means of two levers (*bascules*), which are pressed against the handle of the instrument. The handle is moveable upon a screw, and so contrived that the separation of the two blades may be regulated at will to the extent of eighteen lines. The patient being placed and retained in the same posture as for the common lateral

operation, a staff is introduced into the bladder, and held by an assistant in a vertical position. The operator, armed with a bistoury, makes a transverse incision, of half an inch in length, across the raphè, and about six or seven lines before the anus. This incision divides the skin and subcutaneous cellular texture, and has a slight curvature, the concavity of which presents backwards. A second incision divides the urethra at its inferior part, and the knife is then laid aside. Next, the extremity of the lithotôme is run along the groove of the staff into the interior of the bladder; and, the staff being removed, the lithotôme is so placed that the curvature may present its concavity downwards; the two levers are pressed against the handle of the instrument, which is withdrawn, dividing at the same time the neck of the bladder on either side of the median line, the two lateral lobes of the prostate, and a small portion of the membranous part of the urethra. The rest of the operation has nothing particular in it: it is said to have the advantage of avoiding the essential parts of the generative organs, and the risk of wounding either the rectum or any large blood-vessel.

With regard to the method proposed by M. Sanson, it consists in cutting the inferior and anterior part of the rectum and the sphincter ani on the median line, and penetrating the bladder, either in dividing the neck of this organ surrounded by the prostate, or else its lower fundus. Dupuytren likewise has frequently practised this operation: he cuts as little as possible of the rectum, and makes use of a lithotôme, which he withdraws, cutting the prostate at the side about a line from the *veru montanum*, and without involving the vesiculæ seminales, although he does not think that their division would present any impediment to the generative functions. This method is exempt from the danger of hemorrhage, and the risk of inflammation is said to be less than in the other operations; so that, as regards the life of the patient, it is preferable: but it has the disadvantage of occasionally giving rise to fistulous communications between the rectum and bladder, which are very difficult of cure.

Neither the method nor the cases of M. Breschet appear to present circumstances of sufficient interest for insertion. We subjoin an account of four operations, by MM. Dupuytren and Sanson.

*I. Transverse Operation, performed by M. DUPUYTREN.*

— Rowset, aged thirty-eight, of a lymphatico-sanguine temperament, and sufficiently robust in appearance, had experienced

pain in making water since he was five or six years old. He was admitted at the Hôtel Dieu, the 14th of June, 1825, for incontinence of urine. M. Dupuytren introduced a sound into the bladder, and immediately discovered a calculus, situated near the neck of the organ: it appeared to be large and rough. The patient complained of pain at the extremity of the penis and along the course of the urethra, and of frequent hematuria, but always without gravel. For some years very severe suffering was experienced in the neighbourhood of the rectum: the pain came on in paroxysms, and the patient at such times was in the habit of introducing the fingers of the left hand into the anus; a practice which, he said, mitigated the violence of the agony, and which he therefore could not resist: the fore and middle fingers had, in consequence, become affected with whitlow.

From the day of his admission, he was prepared for the operation by frequent baths, gentle purgatives, refrigerant drinks, and moderate diet. During this interval, he was twice affected with retention of urine, and it was necessary to introduce a catheter. His face was flushed, and the thyroid gland had become considerably enlarged; a circumstance which was attributed to his struggles during the attacks of pain.

On the 1st of July, the operation was performed. The patient being placed in the usual position, a transverse incision was made with the point of a straight bistoury, seven or eight lines before the anus, having a curve, with the convexity presenting forwards. M. Dupuytren, being apprehensive lest the enormous dilatation of the lower part of the rectum, (caused by the repeated introduction of the fingers,) should expose this to injury from the blades of the lithotôme, introduced two fingers of the left hand into the gut, which he stretched in a transverse direction, and pushed back towards the coccyx. The first incision had divided the skin and cellular tissue, and the second cut through the more deep-seated parts down to the urethra. There was now considerable hemorrhage. An incision was made into the urethra with the bistoury, guided by the nail of the fore-finger, first backwards and then forwards, following the course of its axis. The double lithotôme was opened to No. 15, in consequence of the presumed size of the stone. This instrument divided the neck of the bladder, and the lateral parts of the prostate, to the right and left, and from behind forwards. There was a discharge of urine, the patient making continual expulsive efforts, and crying out violently. The forceps was introduced; the stone broke, and was extracted piecemeal: it was about the size of a hen's egg, and was apparently composed of uric acid. Three injections were thrown up. The hemorrhage continued so that about two pallels of blood were lost. M. Dupuytren had recourse to a plug in order to stop the bleeding. A canula, rolled round with linen and charpie, was introduced into the wound, and the apparatus retained by a T bandage. The patient was put to bed.

Immediately after the operation, the presence of the canula produced violent straining, which brought on the bleeding afresh, and clots of blood escaped between the lips of the wound and the envelop of the canula. At last, however, the patient was made to understand the danger of these efforts, and he remained quiet for some hours, when he again began to strain, in consequence of an urgent desire to make water: a clot of blood made its escape by the penis; the bladder, however, did not appear to be distended.

Next day, injections were thrown into the bladder through the canula. The day following, he had little pain, and but little fever, which soon disappeared altogether.

On the 7th of July, suppuration was established; and, on the 10th, the canula fell out spontaneously. For some days longer, the urine all passed by the wound; then half of it by the wound, and the other half by the urethra; and, finally, the whole flowed by the natural passage.

10th August, the patient was discharged without any complaint, and the wound almost entirely cicatrised.

## II. *Transverse Operation*, by M. DUPUYTREN.

— Scache, aged forty-six, of a sanguine temperament and good constitution, was admitted at the Hôtel Dieu, September 5th, 1825.

He had experienced pain in making water from the age of seven years. About twelve, he became subject to hematuria, and this disposition continued for several years: generally speaking, however, he only passed blood after exercise. At thirty, the pains returned; they were continued and acute. Soon after a calculus became impacted in the canal of the urethra, and was extracted by cutting upon it. After this the pains disappeared till he was forty-one, when he suffered afresh, having dysuria, the stream of urine being often suddenly interrupted, and loaded with mucus. From time to time little calculi were voided, with exacerbations of pain: from fifty to sixty were passed in the course of four years. Two months before his admission, he voided another, probably formed in the urethra; it was twenty-two lines in length, and four in circumference. At the same time, fetid gas occasionally made its escape by the urethra, with noise and erection of the penis. The noise was sometimes sufficient to wake his wife, who slept beside him. A month before his admission into hospital, he passed by the same canal a lumbricus worm, white, and eleven and a half inches long. These circumstances gave rise to a conjecture that there existed a communication between the bladder and rectum.

September 5th.—The pains continue; no hematuria; urine purulent and fetid; frequent desire to make water. The patient sounded by M. Dupuytren, who ascertained the presence of a calculus. The general health pretty good.

14th.—On the 12th and 13th, some preparatory measures were put in practice, as a dose of castor-oil, &c. To-day, at nine A.M.

he was sounded again; the perineum was shaved; the catheter, being introduced into the bladder, was held in a vertical position; the skin was stretched with the left hand of the operator, and the first incision, of a semi-elliptical shape, made, eight or ten lines from the anus. The lithotome was opened to No. 12; the urine was evacuated; the stone, which was small, broke, and was removed at several times. No hemorrhage; two injections; and subsequently, the finger having been introduced into the bladder without discovering any thing, the patient was put to bed. Slight pain in the hypogastric region; and, an hour and a half after the operation, a fit of shivering, which lasted three-quarters of an hour. A few hours after, another rigor; continued pain; scanty sanguinolent oozing from the penis and wound. At six o'clock in the evening, headache not severe.

Venesection.

15th, in the morning.—Pulse regular, with little frequency; skin soft and warm; entire cessation of the pains in the hypogastric region. In the evening, some colic.

Bleeding to the extent of about two pallets. Emollient cataplasm to the lower belly.

17th.—The urine begins to flow in greater quantity by the urethra: its smell is still very fetid, and like that of feculent matter; its colour is yellowish, and it is mixed with purulent mucus.

The patient takes six pills a-day, composed of soft Venice Turpentine, gr. lx.; Acetate of Lead, gr. iv.; Extract of white Henbane, gr. vi.

Eight days after the use of these pills had been commenced, the urine was less fetid, and deposited less mucus; but colic soon came on, and was followed by purging. The pills were then discontinued. The wound gradually contracted, till only a few drops of fluid escaped by it. The pills were resumed, and continued till near the end of October, when the patient was discharged. The wound at this time was completely cicatrised, but the urine was still slightly catarrhal.

### III. *Recto-vesical Operation*, by M. SANSON.

Claude Varnet, aged nineteen, a taylor, of good constitution, but of a character habitually grave, was admitted at the Hôtel Dieu, October 4th, 1825. He complained of constant burning pain along the urethra, particularly at the extremity of the glans. These pains had begun only three years before, the patient having been previously affected for twelve months with acute pain about the anus and hypogastric region, extending to the kidneys. The urine flowed freely enough; the jet was never interrupted, and the general health little altered, although the patient was very thin, and reduced by chronic diarrhœa. On sounding, a calculus was detected, which appeared to be large.

After the usual preparation, the operation was performed by M. Sanson on the 10th. The staff (*catheter a ventre*) being introduced, a longitudinal incision was made on the median line of the

perineum, from behind forwards, which cut into the membranous portion of the canal. A probe-pointed bistoury was then introduced into this opening and the prostate; the neck of the bladder, and its inferior wall, divided to the extent of twelve lines above the anus: a large stone, of an oblong shape, was then extracted. No accident happened; there was no fever, and all the functions were regularly performed. On the tenth day, the wound made by the operation was cauterised. Notwithstanding this method, which was practised every day, it was only about the twentieth day that a little urine began to come by the penis, and even this improvement was transitory.

On the 20th of November, the cauterisation was discontinued; and the patient left the hospital on the 8th of December, unable to retain his urine or to pass it by the urethra. Since his discharge, M. Sanson has watched him, and it appears that latterly the wound has become smaller, and shown a disposition to heal.

#### IV. *Recto-vesical Operation*, by M. SANSON.

A boy, named Frederic, aged seven years, of lively disposition, had experienced pain about the penis in making water, and occasionally at other times, from his earliest infancy. He was admitted at the Hôtel Dieu, November 10th, 1825. At this time he had an acute and deep-seated pain in the abdomen, and he experienced a sensation of extreme smarting at the point of the penis, whenever he made water or took the slightest exercise. The stream was wont to be suddenly interrupted, and return again in the same manner. Other circumstances were favourable, and the operation was performed on the 15th. It proved tedious and laborious, and it was not without difficulty that the urethra was divided on the groove of the staff, (the cause of this difficulty is not mentioned.) M. Sanson introduced a bistoury, which was curved on the cutting edge, and divided the prostatic portion of the urethra, the neck of the bladder, and that part of the external sphincter which belongs to the rectum. A small pair of forceps was then introduced into the bladder, and a moderate-sized calculus, of blackish colour, extracted. The only inconvenience suffered by the patient was some slight pain in the belly, which speedily yielded to the application of leeches. On the sixth day, some clots of blood escaped by the wound, and some fears of hemorrhage were entertained; but these proved groundless. On the eleventh day from the operation, some urine passed by the penis: after this, a small quantity always flowed by the natural passage, but the urine did not all pass by the urethra for some time.

The patient was discharged perfectly cured on the 10th of December.

In the first of these operations, it will be observed that considerable hemorrhage took place; notwithstanding which, the patient did well. The bleeding which occurs during this

operation is of little importance, unless it proceed from the division of some considerable artery. Sometimes it is even of use, as it diminishes the risk of inflammation by emptying the minute vessels, in which blood is apt to be accumulated by the irritation of the calculus.

Hemorrhage supervening to the operation is much more dangerous, and often follows that which is in appearance the most favourable. In fact, the division of the vessels would appear to produce a spasm, or retraction, which prevents the blood from flowing immediately; but, within an hour after, it not unfrequently happens that bleeding takes place, either externally or into the bladder. In the former case the evil is soon detected, but in the latter great attention is required. The following are the principal symptoms indicative of internal hemorrhage:—The patient experiences a sense of weight in the region of the bladder, and subsequently becomes sensible of its being distended; he has frequent desire to make water, but without being able to effect it; the face becomes pale, the pulse weak, and occasionally he falls into a state bordering on syncope, from which he only recovers on the accession of a fresh paroxysm of pain; if the hypogastric region be examined, a tumor will be perceived, formed by the distended bladder.

In either case it is necessary to have recourse to plugging, and this is to be done in the following manner:—A silver canula, three inches in length, five or six lines in diameter, and terminating at one end in a cul-de-sac, perforated by numerous holes, is to be procured: at some distance from this extremity, a *chemise* of fine linen is to be put on, and the canula introduced into the wound, till it arrives at the bladder; then between it and the linen, charpie is to be put in sufficient quantity to exert a degree of pressure capable of arresting the hemorrhage. The canula is to be secured by tapes, and attached to a bandage. If the bladder be already full, the surgeon should begin by introducing the finger, smeared with cerate, into the wound; and, in doing so, care would be required not to mistake for the bladder the little cul-de-sac which may be produced by pushing the finger against the recto-vesical partition. The finger being in the bladder, a syringe is to be guided so as to throw up injections; and care is to be taken to leave no clot; otherwise the bladder, contracting, will soon throw it out, and the canula along with it. To these means, which, though simple, are very efficacious, is to be attributed the favourable result of the case above alluded to.

With respect to the two examples of recto-vesical operation,

it is to be observed that one of them gave rise to a fistula, probably owing to the extreme emaciation and weakness of the patient; while it is the opinion of the surgeon that this distressing infirmity was likely to be got rid of in time. The risk of a fistulous opening being left, is certainly the greatest objection to this form of operation; at the same time, there are numerous instances recorded, in which this has subsequently been healed. M. Dupuytren, having occasion to operate on an old man above eighty, gave the preference to this method, as least dangerous to life; besides which, the stone was large. A fistula followed, but it healed spontaneously a year after. M. Sanson practised this operation upon a young man, in a *Maison de Santé*: the patient was discharged with a fistula, and went to an hospital to be treated for it. The means adopted were unavailing, but the fistula healed spontaneously soon after he had returned home. M. Dupuytren operated, in 1823, on a man forty-five years of age: a fistula followed; this was cured by cauterisation in the course of some months. In the same year, a child was thus operated upon at the *Hôtel Dieu*; had fistula: cauterisation was employed without success, and he returned home. At the end of four months, the wound healed spontaneously. In 1824, a child was admitted at the *Hôtel Dieu* for a recto-vesical fistula, which had followed the operation, and been present for a year: it involved the neck of the bladder, and a part of the membranous portion of the urethra. Half the urine escaped by the wound, whenever the bladder was emptied; besides this, there was a constant oozing, in consequence of which the urine became accumulated in the rectum, occasioning irritation and some degree of purging. Feculent matters and stercoraceous gas likewise passed into the bladder, which suffered, in its turn, from the presence of these foreign bodies. M. Dupuytren applied the nitrate of silver: this was done by taking a gum-elastic sound, and removing a portion at one side and near the extremity: into this the caustic was introduced, and fixed with thread. He thus cauterised only one particular point, avoiding the neighbouring parts. After two applications, a much smaller quantity of urine flowed by the wound, and the little patient was speedily cured.—These examples show that this unfortunate consequence of the recto-vesical operation may be frequently removed, but they at the same time show the frequency of its occurrence.

With regard to the different methods of operating, no general conclusions can be drawn from these cases: all the patients recovered; and it might be safely said, with regard



to lithotomy, that its success depends much less upon the method, or even the individual skill of the operator, than upon the constitution of the patient, and the preparatory and subsequent treatment.\*

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*Observations on the Frequency of the Occurrence of Follicular Ulceration in the Mucous Membrane of the Intestines, during the course of Idiopathic Fever.* By CORNWALLIS HEWETT, M.D. Physician to St. GEORGE'S HOSPITAL.

(Continued from page 114.)

THE next point which I beg to propose for consideration, is the period of the fever at which these follicular ulcerations of the intestines first establish themselves, and are most likely to occur.

The history of the case of Charles Eynon shews that the first invasion of the fever took place about November 15th; that he was admitted into the hospital on the 22d November, and died on the 28th November, 1825.

Mary Hawkins, whose case has been already detailed, was admitted into the hospital on the evening of November 26th, 1825, and died during the course of the night, having been ill with fever following the suppression of the catamenia, from a cold caught at a dance only a week before: such, at least, was the history obtained through the kindness of the medical gentleman who had attended her previously to her admission into the hospital.

Another very rapidly fatal instance is that of the perforating ulcer, causing extensive peritonitis, in Sarah Rawden.

These instances, it must be acknowledged, far exceed the average rapidity of these follicular ulcerations in their progress to a fatal termination. But the possibility of the occurrence of follicular ulceration at so early a period of fever, appears to me to be a point of considerable practical importance. The fatal event may, indeed, be delayed from various causes: its most usual period is, probably, from the end of the second to the middle of the fourth week after the decided invasion of fever; but, previously to the establishment of the ulceration, it is obvious that some morbid action must have been going on in the parts, and the above investigations appear to have shown that the primary step of this morbid process is obstruction and enlargement of the mucous follicles; that inflammation, though

\* *Répertoire générale d'Anatomie, &c.*

not an unfrequent, is by no means a necessary, part of this process; that, even when ulceration is established, the exhalant surface in the immediate neighbourhood of such ulcers is sometimes found of its natural complexion, and without any increased vascularity whatever. It becomes, then, a very necessary point of enquiry to ascertain how soon, in the course of idiopathic fever, such enlargement of the mucous follicles has been detected; and here the researches of the French pathologists are calculated to afford us much assistance in the elucidation of this hitherto neglected subject.

In the *Revue Médicale*, Mai 1826, page 211, the case is related by Monsieur le Dr. LANDINI, of a young man, who had walked to the hospital on the 15th August, 1825, and was admitted with only the common symptoms "*d'une dothín-entérite au huitième jour :*" in the course of the night he had three evacuations, became delirious, and killed himself by throwing himself out of the window. In the post-mortem examination, the *glandulæ aggregariæ*, as well as the *glandulæ solitariæ*, were found considerably enlarged, and elevating the mucous membrane, without, however, any trace of erosion. They were particularly numerous and prominent in the ileo-cæcal portion of the intestines, "*et faisaient proeminer dans le cæcum la valvule, qui avait l'apparence d'un bourrelet épais.*" It is remarkable, he adds, that the mucous surface immediately surrounding these little bodies, did not appear the least diseased.

In the examination of another case, where death had taken place on the sixth day after the invasion of the fever, the same appearances exhibited themselves, only with rather less development of the glands. The specimen was sent to M. DUPUYTREN, who exhibited it in the amphitheatre, and stated that he had, at another time, submitted a similar one to the inspection of the students.

In the *Archives générales de Médecine*, Janvier 1826, p. 70—76, M. TROUSSEAU has detailed the daily change in the appearance of these glands, from the fifth day after the commencement of the fever until the fortieth. These observations were made after numerous dissections in the hospital at Tours, under the direction of M. BRETONNEAU, and are well deserving the attention of the profession; though the air of precision, with which the daily changes are announced, rather shakes than establishes one's faith.

It may suffice for our present purpose to state the result of his observations, that, unless the disease takes a favourable turn, and the enlarged glands begin to subside, slight erosion takes place at their summits between the tenth and twelfth

days, and decided ulceration about the 14th; that, from the nineteenth to the twenty-first days, the ulcers, having become more superficial, tend to cicatrisation; that, by the twenty-fifth day, the glands have entirely subsided, and cicatrisation commences; that, by the twenty-fifth, it is generally completed, though still some ulcerations may occasionally be met with in the glands about the extremity of the ileum, but that the cases are rare where they are not all healed by the fortieth day.

That such is the series of changes produced in the condition of the mucous membrane of the intestines in these fevers, I am fully persuaded, though not quite prepared to fix their occurrence, and periods of succession, precisely to the dates lately mentioned.

The great difficulty, in a practical point of view, is to connect these morbid internal actions with the external symptoms. Until the follicles have attained sufficient size to irritate or disturb the mucous membrane in the exercise of its functions, the symptoms do not appear to exhibit any difference from those usually attending the common fever of this country. The only occurrence which, at this early period, would awaken my suspicions of the gradually advancing development of these mucous follicles of the intestines, is a peculiar hardness and fulness of the abdomen, not readily yielding to copious evacuations, whether spontaneously occurring or excited by purgative medicines. When, however, the mucous surface becomes irritated by the progressive enlargement of these follicles, then, in general, some obvious abdominal derangement, as painful, exhausting, and uncontrollable diarrhoea, accompanied with tension or obscure tenderness or nausea, on pressure of the abdomen, will generally supervene, and in its turn aggravate the other febrile symptoms. About or shortly after this period, apprehensions of some slight inflammatory affection of the intestines very probably may be excited, by the exasperation of the general as well as the local symptoms: or, very possibly, without any marked interval of excitement, the disease may gradually exhibit obscure, or even unequivocal, symptoms of ulceration of the intestines.

The detection of the existence of these follicular ulcers in the intestines, is by no means always so easy and simple a point as has been generally imagined: it might, indeed, *a priori*, have been expected that the occurrence of such ulcers must necessarily be attended with tormina, permanent pains and tenderness of the abdomen, with great irregularity of the

bowels, and sanguineous, or at least morbid, evacuations; but a reference to even the few cases already detailed will show that these follicular ulcers have, on the post-mortem examination, been found to exist in the intestines, when the patient had been submitted daily to forcible pressure of the abdomen, without the acknowledgment of even any uneasiness,—when the abdomen has felt to the hand of the practitioner to be supple and natural,—when there has been little or no febrile heat of the skin,—when the pulse has been nearly natural,—when the tongue has appeared healthy,—when the evacuations have exhibited their natural appearance,—and when the patient, though subject to night-delirium, has recovered the possession of his faculties during the day, and retained them till the moment of his death.

I do not mean to say that any single case of fever has presented so favourable an assemblage of symptoms, and yet has exhibited, upon examination after death, the presence of follicular ulcers in the intestines; but that such ulcers have been found to exist, when most of the symptoms, usually deemed the requisite and infallible characteristics of their existence, have been absent: and again, in other cases, that no ulcerations have been detected after death in the intestines, notwithstanding the previous occurrence of the symptoms generally considered as tests of their existence.

It may, perhaps, be worth while briefly to investigate the value of some of those symptoms, the occurrence of which in the course of fever is usually thought to convey strong indications of the existence of intestinal ulcers; and, first, our attention will naturally be attracted to the consideration of intestinal hemorrhage.

That copious discharges of blood may take place from the intestines, or other mucous surfaces, without any permanent structural lesion, is a fact sufficiently known to every observant practitioner. Familiar examples occur in the frequency of hematemesis in the advanced stages of indurated liver, or when appearing as vicarious of the catamenial secretion; in menorrhagia also, and even in some cases of hæmoptysis, the same fact is exemplified. If the authority of great names is thought necessary for the establishment of this doctrine, it may suffice to allude to the observation of BOERHAAVE, that, when the reflux blood from the intestines is obstructed in its course through the vena portæ, it is apt to flow from the intestines. MORGAGNI made the experiment of tying the vena portæ in a living animal, and ascertained that it was speedily followed by an increased vascularity of the mucous

membrane of the intestines, and sometimes by an exhalation of blood from its free surface. BICHAT quaintly remarks, (vol. ii. p. 78,) “La matrice ne serait qu’un amas des cicatrices chez les femmes âgées, s’il y avait rupture dans la menstruation.”

It seems desirable, then, to ascertain what means we have of distinguishing when the intestinal hemorrhage arises from a mere congestive state of the mucous membrane, and when from follicular ulcerations in it.

When a copious discharge of blood takes place from the intestines, without any breach of their mucous surface, in the course of fever, it usually occurs at rather an earlier period, and not unfrequently seems to act beneficially, by relieving the congestion of the abdominal viscera; but examples are not wanting where its occurrence, even at an advanced stage of fever, has gained the character, from the universal amendment accompanying it, of a critical discharge; and still, when the patient, after having become convalescent from the fever, has quickly sunk under the attack of some new malady, (as, for instance, of erysipelas,) no structural lesion has been discovered in the mucous membrane of the intestines in the post-mortem examination, though conducted with the greatest attention in order to ascertain this point, and though made within an interval of two or three weeks after the occurrence of such sanguineous evacuations.

The sanguineous evacuations, on the other hand, occasioned by follicular ulcers in the intestines, do not occur until a very advanced stage of the fever, and, when occurring, generally contain an enormous quantity of blood; the reason of which is sufficiently obvious, from the consideration that the hemorrhage does not take place until the ulcer has penetrated sufficiently deep to erode the ramifications of the mesenteric vessels: and, indeed, it is remarkable how frequently even their erosion is effected without the occurrence of hemorrhage. It is probable that, before their erosion is accomplished, they are often rendered impervious to the blood by the morbid actions accompanying the progress of the neighbouring ulceration, in a manner somewhat analogous to that by which the obliteration of the blood-vessels is often effected on the margin of vomicae in the lungs, in phthisis tubercularis. When the intestinal hemorrhage is occasioned by follicular ulcers, the tenderness of the abdomen, which usually precedes the discharge of blood, does not seem to be diminished after it, but continues, at least for some days, equally perceptible as before the occurrence of hemorrhage;

and the general symptoms, instead of improving, often become rapidly worse: whereas, when the hemorrhage arises without ulceration of the mucous surface, the relief thus afforded to the congestions in the abdominal viscera is followed by a relief also to the fulness and tenderness of the abdomen, and not unfrequently by an obvious general amendment.

But it frequently happens that the patient makes no complaint of pain in the bowels; that the appearance of the evacuations gives no indication of the existing ulcerations; and that their existence is first suspected, or detected, in consequence of the tenderness discovered on pressure of the abdomen; but, in using pressure with the hand as a means of ascertaining the existence of these intestinal ulcers, it is to be remembered that tenderness of the abdomen sometimes arises in fever from mere distention of the bladder, in consequence of the inability of the patient to void his urine; and that at other times it is only a part of the universal tenderness which so often affects the integuments in fever.

The right iliac region of the abdomen is the portion where the tenderness is most generally discovered, in consequence of the greater frequency of these ulcers in the neighbourhood of the ileo-cæcal valve; but, as the ulcers sometimes occupy so very small a space, it will be necessary that the whole of the abdomen be carefully pressed, in order that no ulcerated part may escape detection by pressure.

In some cases, at the time suspected, and afterwards proved, to be complicated with follicular ulceration of the intestines, though only a very slight degree of uneasiness was excited by forcible pressure upon the abdomen, still a very distressing degree of nausea resulted from it, and was most grievously complained of by the patient.

In estimating the degree of danger arising from these intestinal ulcers in fever, it may be useful to remember that not only a large extent of confluent, though superficial, ulcers, but even a single deeply-penetrating ulcer, will be attended with considerable danger, increasing in proportion to its approximation to the peritoneum, and the risk of its causing hemorrhage, by erosion of some mesenteric vessel, or of its exciting extensive inflammation of that membrane, whether before or after perforation of it. The more exquisite tenderness of the abdomen, with the supervention of deadly sickness, and the more unequivocal symptoms of peritonitis, will generally give sufficiently clear indications of this extension of the ulceration.

## TREATMENT.

After these desultory remarks upon the symptoms usually attending and indicating the existence of follicular ulcerations in the intestines in fever, I beg, with every proper feeling of deference, to submit the following outline of a plan of treatment, as calculated, if acted upon at a sufficiently early period, to prevent their occurrence; or, if adopted after the establishment of the ulcerations, to conduct them to a favourable termination.

The French practitioners seem to be labouring under an impression that it is no more within the power of medical science to control the appearance or disappearance of this follicular affection, than of measles, variola, scarlatina, or other specific inflammations;—(qu'on ne peut pas plus empêcher l'apparition ou hâter la disparition de la dothinérité, qu'on n'empêche ou qu'on ne hâte celle de la rougeole, de la variole, de la scarlatine, et autres inflammations spécifiques," &c.)\*—but, though I most willingly admit the excellence of their pathological researches, I feel myself compelled to state my dissent from the above doctrine, and its accompanying principles of practice.

In the proposed plan of treatment, the indications will necessarily vary according to the stage of the disease, but will be principally derived from the supposed progressive alteration in the condition of the follicular glands of the intestines.

There appear to be three stages of the disease sufficiently distinct to be recognised by the external symptoms, and requiring a corresponding variety of treatment.

The first stage comprises the period between the incipient and the complete development of the mucous follicles, which is prior to any inflammation or erosion of the neighbouring membrane.

The second comprehends the period of the incipient and advancing ulceration of the mucous follicles, which is generally, but not invariably, accompanied with some slight inflammation of the neighbouring exhalant surface.

The third embraces the period of the separation, by sloughing, of these previously disorganised follicles, with their neighbouring structures; and the termination of the ulcers, either in cicatrization or in the death of the patient.

In conformity with the pathological views which have been already detailed, the plan of treatment proposed for the first stage of fever consists in the effective exhibition of Calomel,

\* *Revue Medicale*, Mai 1826; p. 204.

combined with any of the auxiliary purgatives and sudorifics; the doses of each being regulated according to the strength and age of the patient.

In addition to the indications derived from the inspection of the evacuations, and the degree of improvement of the general febrile symptoms, a practically useful hint for the continuance or discontinuance of the purgatives may be obtained by feeling the abdomen of the patient. After three or four days of this treatment, it will probably have become less hard and prominent than it at first appeared to be; but, until the abdomen feels soft and supple (as in its healthy state), purgation, though not so actively, is still to be daily pursued.

When this system has been followed for five or six days, in the first stage of fever, if the evacuations still exhibit a morbid appearance, and the abdomen, though not so hard and resisting as at first, still remains tumid and tympanitic, it is sometimes of service to suspend for a day or two the use of the purgatives, and exhibit a small dose daily (two or three drachms) of castor-oil, for the purpose of ascertaining whether the unhealthy character of the evacuations may not have been prolonged by the continued irritation of the purgatives. Laxative doses of castor-oil, thus administered, will often produce, in the course of twenty-four or thirty-six hours, well-coloured though liquid stools, and an accompanying subsidence of the abdomen to its naturally soft and supple condition.

But if, after this intermission of the purgatives, such an amendment is not discovered in the condition of the abdomen (without), and in the appearance of the evacuations, it will be advisable to resume the use of the cathartics, in milder doses.

It may be objected, that this system of purging freely is inadmissible in many cases of fever; in such, for instance, as are attended with early diarrhœa: but these early watery evacuations appear to be principally derived from the exhalant surface, and do not seem by any means to be incompatible with a torpid condition of the mucous follicles of the intestines. At any rate, purgative doses of Calomel and Rhubarb, or of Blue-pill and Rhubarb, or of Hydrargyrum cum Cretâ and Rhubarb, or of Hydrargyrum cum Cretâ and Ipecacuanha, are often found to be most effectual in controlling them, and in reducing the tension of the abdomen which usually accompanies them.

In addition to the many other benefits derived from purgatives at this early stage of fever, they appear to me to be



particularly effective in preventing follicular ulceration of the intestines, by the power which they possess of clearing out the obstructed orifices, and emptying the distended follicles of their morbidly-inspissated secretions; so that these mucous glands, thus seasonably relieved, soon subside, and resume their natural size and healthy functions.

The treatment of the second stage requires to be regulated upon the principle of subduing the inflammatory action, if the attendant symptoms give reason to apprehend that any such exists, of the membrane immediately adjoining the enlarged follicles, and of restoring these mucous glands to their natural size, and the exercise of their proper functions.

These indications seem to be best fulfilled by the repeated application of leeches to the abdomen, more or less frequently according to the degree of its tenderness, intensity of the fever, and strength of the patient; while two or three grains of Calomel, and the same quantity of James's powder, may be given in pills, and repeated every six, eight, or twelve hours; with the occasional exhibition, if the bowels are not sufficiently soluble, of small doses of Castor-oil; or, if they be too much relaxed, three grains of the Extract of Poppies, or a quarter of a grain of Opium, may be added to each dose of the above pills; or, in lieu of them, Hydrargyri cum Cretâ Oss. may be given, and repeated three or four times daily. Hot fomentations are at the same time to be kept constantly applied to the abdomen; and afterwards they may be superseded by the application of a blister.

The same measures may be continued even after the follicles have passed into a state of ulceration, provided that the symptoms indicate a continuance of the local inflammation and febrile excitement.

It may fairly be asked, why venesection has not been decidedly recommended in the second stage of this disease? In some cases it is undoubtedly advantageous, but only in very few; for, previously to the establishment of any inflammatory action, and still more so to the exhibition of any symptoms indicating its existence, so much structural lesion has generally been effected in the follicular glands and neighbouring structures, as to render the patient incapable of receiving benefit from venesection, or even of bearing it, if pushed to any extent.

The insidious progress of these follicular ulcers, until the moment of their exciting peritonitis, and the inability of the patient to bear the degree of depletion necessary for its cure,

are well exemplified in the fifth Case. This patient was upon the point of recovering from an attack of fever, when she suddenly experienced a relapse. On the Friday morning (seven o'clock A.M.) she had been bled almost to syncope, for unequivocal symptoms of peritonitis. When I first saw her, (at ten o'clock A.M.) I immediately directed a repetition of the venesection, and repeated it again in the afternoon; and followed it up by the application of leeches in the evening. Venesection was repeated, for the fourth time, at two o'clock P.M. on the Saturday. The venesection, on all these occasions, was pushed almost to syncope; but only a temporary mitigation of the sufferings was obtained after each venesection.

At eleven o'clock P.M. she was incessantly complaining both of the pain of the blister and also of the internal pain, which she compared, in her own emphatic language, to "a cauldron of pitch and sulphur burning within her;" the skin was quite cold and clammy; and she expired on the following morning at eight o'clock.

The dissection showed that the measures employed had subdued the peritoneal inflammation, but could not counteract the structural lesion previously effected by two small but deep follicular ulcers, discovered within an inch of the ileo-cæcal valve.\*

In the next case, the coldness of the skin, the softness and weakness of the pulse, and the other symptoms of excessive debility, were sufficiently obvious to convince all, who saw the case at the time of its admission, that venesection and depletory measures were then perfectly inadmissible. She was admitted into the hospital about two o'clock P.M. May 24th, and died on the afternoon of May 26th.

The dissection clearly proved that the peritonitis was not the primary disease, but had been excited by the progress of one of the follicular ulcerations, which had penetrated through all the coats of the ileum.

In the history of seven fatal cases of similar perforations of the small intestines by the progress of ulcers from the mucous membrane, by M. LOUIS, it is remarked, "the interval of time elapsing between the first symptoms of perforation and death has varied from twenty to forty-eight hours." This author also states, that the disease came on, in all these cases, as a slight continued fever, scarcely presenting any severe symptom till the period of the perforation. Diarrhœa was constant

\* Vide page 102 of the last Number of this Journal.

and severe in one patient only; it was moderate in another; present, but still more inconsiderable, in a third; and in the four others it was altogether absent. The pain in the belly was slight, and experienced only at intervals; while the patient who had the severe diarrhoea had no pain at all. Four regarded themselves as convalescent, and had been considered as such for several days, when the symptoms of perforation supervened; so that no unfavourable occurrence could reasonably have been anticipated. The treatment was nearly the same in all: bleeding, both general and local, was had recourse to, without the slightest apparent influence over the disease. The antiphlogistic plan was vigorously employed in the second case,—(*“la methode antiphlogistique n’a certainement pas été employée avec trop de reserve chez le second;”*)—yet it proved one of the most speedily fatal.

When, however, the third stage has arrived,—viz. that of the separation, by slough, of the previously disorganised follicles,—the accomplishment of this process, and the subsequent reparation of the ulcerated surfaces, appear to be most effectually promoted by the same constitutional tonic treatment as that by which the cure is best effected of the sloughing sores so often found, at this period of fever, on the outer surface of the body; great attention being paid to keep the bowels in a gently relaxed condition, by the mildest possible means, as very small doses of castor-oil or slightly-laxative enemata.

The above hints have been very humbly suggested, with the view of pointing out a line of treatment adapted to the relief of those cases only in which abdominal derangements or lesions are the prominent feature of the fever.\*

\* Of the ten cases of Follicular Ulcerations related in the former part of this paper, four were under the care of Dr. Hewett, and the remaining six under that of the other physicians of St. George's Hospital.

## CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim  
illa, prius, cretâ; mox hæc, carbone, notamus.—PERSIUS.

*Observations on the Physiological Principle of Sympathy, chiefly in reference to the peculiar Doctrines of Mr. CHARLES BELL.* By W. P. ALISON, M.D. F.R.S.E.; Secretary to the Society, and Joint-Professor of the Theory of Medicine in the University of Edinburgh. (*Transactions of the Medico-Chirurgical Society of Edinburgh*, vol. ii.)

MR. CHARLES BELL, in his paper on the Nervous Circle,\* has proved, by means of anatomy, a physiological truth of great importance,—namely, that a sensation, conveyed to the mind, precedes the action of a muscle. We must remark, however, that, in the paper alluded to, this principle has been followed out only so far as to show the connexion of the nerves of sensation with the muscles of voluntary action. Yet there is no reason assigned for confining the connexion to the voluntary muscles: on the contrary, some of the illustrations prove that the same principle applies equally to those which are involuntary. The nerve to which our attention is most frequently directed, is the portio dura, the motor nerve of the muscles of the face; and we know that this, at certain times, is under the control of the will, but most frequently is independent of it. We shall, by and by, have occasion to dwell upon the principle which we have now stated, and we shall then show that it is applicable both to voluntary and involuntary actions.

About the same time that Mr. Bell's paper was published, Dr. ALISON's essay also appeared. The chief object of this is to refute Mr. Bell's doctrines; and we proceed to show the grounds on which Dr. Alison founds his objections to the classification of the nerves as proposed by that author.

Mr. Bell's last paper has for its object to prove that there is a nervous connexion between muscular actions and sensations in the brain: and he illustrates the subject by anatomy, referring to the motor nerves and the nerves of sensation. Dr. Alison's paper has for its object to prove the principle of "all sympathetic actions being dependent on mental sensations:" his reasoning is founded on metaphysical proofs. Thus there is an essential difference in the mode by which these two gentlemen arrive at nearly the same general prin-

\* Philosophical Transactions, 1826.

ciple: the former grounds his reasoning on anatomy; the latter rejects anatomy altogether.

Dr. Alison has professed to make his observations on this subject, only somewhat fuller, illustrations of the principle laid down by Dr. WHYTT, in his "Essay on the Sympathy of the Nerves." It is, perhaps, known to most of our readers, that the theory of Dr. Whytt has been long regarded as exceedingly vague and uncertain, because its consistency with the anatomy of the nervous system could not be proved:\* yet this very circumstance appears to enhance its value in the opinion of our author. "The researches of Dr. Whytt and Dr. Munro on this subject were, as I think, quite successful in establishing two points in regard to such phenomena: first, that they cannot be explained by the connexion of the nerves of the sympathising parts; and, secondly, that they do not indicate any necessary consent or sympathy between the individual parts of the body, but are in general simply the effects of certain mental sensations." (P. 170.) In these sentiments we find an explanation of the reason why Dr. Alison refuses to adopt Mr. Bell's views: he has perceived that the class of respiratory nerves is made to account for several sympathetic actions, and, being a disciple of Drs. Whytt and Munro, and convinced by them that the principle of sympathetic actions cannot be explained by the connexions of nerves, he has concluded that Mr. Bell's views are incompatible with their doctrine; and therefore that the functions of the nerves, as explained by him, must be unfounded.

As this is a very curious and important subject, we shall endeavour to show that the connexions of the nerves do assist us in understanding the principle of sympathy; and that the new classification of the nerves affords us the explanation which Dr. Alison thinks impossible.

Although this gentleman has stated his conviction that sympathetic actions depend upon sensation, yet he has omitted to consider the nature and peculiarities of different sensations. Having arrived at the conclusion, that there is a "previous sensation in the mind," he conceives that he has attained the whole physiological truth concerning the principle of sympathy; and he has, perhaps, advanced so far as

\* If we refer to the numerous papers written during HALLER's time on the same subject, we shall find that this principle forms the foundation of many rival theories, as in the following:—By JOANNES ASTRUC, "An Sympathia Partium a certa Nervorum Positura in interno Sensorio?" 1736; ALBRECHT THAER, "De Actione Systematis Nervosi in Febribus," Goettingæ, 1774; CHRIST. GUL. HENR. DE MARIES, "De Animi Perturbationum in Corpus Potentia," Goettingæ, 1775; ERNESTUS PLATNERUS, "De Causis Consensus Nervorum Physiologicis," Lipsiæ, 1790; and many others.

metaphysical research allowed. But it is to be considered—1st, that sensibilities are infinitely varied over the whole body; 2ndly, that each kind of sensibility is attended with its appropriate sympathetic effects; and 3dly, that the nerves which convey sensation to the sensorium form a distinct class.

1. The nerves of sensation are distributed, as we well know, over the whole body: their most striking peculiarity is, that the sensibilities, which they convey to the sensorium, differ in almost every part of the body. By a wise provision of nature, each organ is endowed with that kind of sensibility which is best suited for its protection, and its offices in the economy. Thus, the common integument is not endowed with a sensibility which resembles that of the surface of the eye; the heart does not possess the same sensibility as the skin, yet it is most acutely sensible to its proper stimulus,—viz. the distention by blood; ligaments, tendons, and cartilages, possess sensibility of a certain kind, yet not such as to bestow pain during the natural motions of the body; but, if a joint be stretched beyond its proper degree, its sensibility is immediately called into action, as any one who has sprained his ankle must know full well.

These examples are sufficient to prove that sensations are different in the various structures of the body. They are implanted for the purpose of guarding the individual parts; and it is in conformity with this principle that each structure is endowed with an appropriate defence against injury.

2. Sensations likewise vary throughout the organs of the body, to produce certain combinations of the muscles.

If we consider the system of the animal body, we shall see many instances of peculiar sensibilities rousing certain muscles into activity. Irritation of the larynx, producing cough, is not a more curious example of a peculiar sensation stimulating an infinite number of large and small muscles, to combine for one purpose, than irritation produced by the pressure of the urine upon a particular spot of the bladder, in causing some muscles to relax, and others to contract, for the expulsion of the urine. While considering the muscles of the perineum in the male, we find another example, equally illustrative: for, when a different kind of sensation forms the excitement, a different combination of the muscles is produced. The arrangement in the action of the muscles for expelling the fæces, forms also another illustration of this subject. We might multiply our instances by referring to the intestines, or to the heart, which contract on their contents, each acknowledging the influence of its proper stimulus. No example is more wonderful than that of the sensibility of

the uterus, which, having remained inactive during gestation, at length contracts upon the foetus, when the proper period for its expulsion has arrived.

These examples show that certain sensibilities are implanted in various parts of the body, which, being excited, cause the actions of appropriate muscles. Each of these sensibilities is bestowed for useful purposes in the economy; and it is necessary that we should have a perfect acquaintance with the functions of a part, to understand the character of its proper sensibility.

3. Let us now consider the class of nerves which bestow sensation.

The anatomical fact, in relation to the variety of the sensibilities in the body, is this:—The nerves of sensation, which are those arising from the posterior column of the spinal marrow and the fifth pair, are endowed with sensibilities very differently modified. This may be best illustrated by considering the fifth pair. It is now ascertained that this nerve bestows, first, the degree of sensation which is peculiar to the skin; secondly, that acute sensibility which is possessed by the surface of the eye; thirdly, the sensation peculiar to the internal membrane of the nose; fourthly, that of the sides and tip of the tongue; and, fifthly, that of the muscles. Instances have occurred to prove that any of these sensibilities may be separately lost by affections of the fifth pair.

But, if we inquire further, we shall find that distinct sympathetic actions are dependent on each of these peculiar sensibilities, all of which are roused into activity by this individual nerve. 1. Dashing cold water on the skin of the face or head, produces a deep inspiration. 2. The surface of the eye being irritated, causes convulsive action of the orbicularis oculi, and draws tears from the lachrymal gland. 3. Tickling the inside of the nose excites the whole apparatus of the respiratory muscles into violent action, to produce sneezing; and in this case we may observe that the actions of a numerous class of muscles are arranged so as to direct and concentrate the expired air to sweep off the offending cause from the nostril. 4. Sapid bodies being applied to the tongue, cause an increased flow of saliva to the mouth, and draw into action the organs of mastication.

Cases have occurred\* which prove that, when the fifth pair is destroyed, the sensibilities being lost, the muscles cease to produce their sympathetic actions; so that the eye

\* See "Exposition of the Nervous System."

may be pressed with the finger without causing winking, and the inside of the nose may be tickled without sneezing. Yet it is observed that patients, in these circumstances, can shut the eyelids, or draw the other muscles of the face into action, by voluntary effort.

It will now, perhaps, be allowed that we have made a considerable step towards connecting anatomy with the "principle of sympathy." We may not, indeed, be able to explain why a certain kind of sensibility produces a certain sympathetic action, for that must depend upon the sensorium; but we have traced the individual nerve which conveys the *sensation* to the brain. Take sneezing, for example; we know that it is the fifth pair which receives the impression, and transmits it to the brain; and we further see that there follows the sensation, so produced, a peculiar excitement, drawing certain muscles into action. We observe that the muscles excited are of the class called respiratory; and if we find that, when certain nerves are entire, the series of actions above alluded to is produced,—but that, when they are cut across, no action takes place, however the nerve of sensation may be excited,—is it not fair to conclude that they are respiratory nerves? Thus it is by observing the manner in which certain nerves are brought into combination in each sympathetic action, that we may discover the motor nerves to which the impression was conveyed through the sensorium.

It may be seen that, belonging to respiration, there are certain sensations which excite peculiar sympathetic actions, for the protection of this important function. It has not been asserted that the organs of respiration are peculiar in this respect: indeed, several instances have been stated, which show that the "principle of sympathy" extends over the whole body; and the only *peculiarity* of the respiratory apparatus is, that there exists a class of nerves destined for its functions, distinct from those which supply other parts.

If we attend particularly to the sensibilities which influence the act of respiration, we find that nature has guarded this function with a sensibility which is at all times awake. Under ordinary circumstances, it controls the complicated actions of breathing, without the cognizance of the will; and it becomes the object of our perception only when danger to the function is impending. No sooner, however, is this the case, than the sensation we call *anxiety* is excited; by which the respiratory muscles are sympathetically roused to their utmost exertion. We have frequent opportunities of observing the heaving of the chest and shoulders, the gasping and



contractions of the throat, the spasmodic twitchings of the face, the energy that pervades the whole frame, in those who suffer from obstruction in the windpipe, or die from hæmorrhage. The sensation seems to have its origin in the heart and lungs: being conveyed to the sensorium, it produces those phenomena through the medium of the respiratory nerves.

Through this sensibility, the heart and lungs are so combined, that, in all the variations to which they are liable, they are still found to correspond; the accelerated action of the one being directly followed by the excitement of the other. If there be an increased activity in the heart, it is necessary, for the circulation of the blood, that the apparatus moving the lungs should be accelerated in a corresponding degree: and, as the lungs themselves are passive, the influence must be sought for in those muscles which move the chest, the throat, and the nostrils.

In various powerful affections of the mind, there is a sensation referred to the breast, the existence of which is manifested by external signs. Writers on Ethics have classed *emotions* separately from the intellectual states of the mind, on account of the peculiar "vividness of feeling" which belongs to the former.\* It would appear that simple consciousness is too dull a medium for these affections of the mind to be impressed through it alone; and there is added an excitement of the frame, which gives intensity to the feeling. There is a certain turbulence produced in the action of the heart and the dilatation of the chest, and in the contractions of the throat and face, whenever the mind is intensely affected with emotion: thus, for example, in terror, the heart beats with force against the ribs; "there is a spasm on his breast; he cannot breathe freely; the chest is elevated; the muscles of the neck and shoulders are in action; his breathing is short and rapid; there is a gasping and convulsive motion of his lips, a tremor on his hollow cheek, a gulping and catching of his throat." The explanation of these phenomena seems to be this:—The nerves of respiration have been influenced by the condition of the mind to produce these actions; this disturbed state of the heart and respiratory organs is quickly referred to the mind, through that sensibility which we formerly said watches over them: and thus a sensation is produced, very nearly resembling that which accompanies threatened suffocation.†

This view of the matter illustrates how corporeal sensations

\* BROWN'S "Lectures on the Philosophy of the Human Mind," vol. iii. p. 29.

† For further illustrations of this subject, the reader is referred to the second edition of Mr. Bell's *Essays on the Anatomy of Expression*.

are reflected to the mind, to render us more vividly alive to its emotions; and it also shows that the mind may rouse certain parts of the body into activity, independently of a preceding sensation. In these instances, sensation is not the cause, but the consequence, of the particular actions already produced in the body.

According to Dr. Alison, in adopting Mr. Bell's views,

"We should be obliged to suppose that there are bound up, in what is commonly called the olfactory nerve, one nerve destined for the perception of nauseous smells, and connected with the nerves of the abdominal muscles and diaphragm,"—(and the stomach, &c. if he supposes the act of vomiting);—"one for the smells that cause faintness, connected with the nerves of the heart; and one for savoury smells, connected with those of the salivary glands. And in the fifth pair of nerves we must suppose that there are bound up, one nerve for the perception of cold applied to the face, and connected with the phrenic and intercostal nerves, by which the act of inspiration is performed, and also with the cutaneous nerves of the whole surface, by which a general constriction of the capillaries is produced; one for the perception of irritations of the nostrils, connected with the phrenic and lower intercostals and lumbar nerves, by which the act of sneezing is performed; and one for the perception of pain in the eyeball, cheeks, or teeth, possessing little or no connexion with the respiratory nerves; and so in other instances."

If, indeed, we expected to see all obscure phenomena explained,—the effects, for example, of odours giving pleasure or pain, or exciting disgust and nausea: if all those singular nervous affections, which are variously exhibited in different individuals, had been attempted to be accounted for, by this new system of the nerves, we should have thought of Mr. Bell's observations as Dr. Alison does. But we have remarked that he most resolutely avoids entering on subjects of this kind, which promise no successful results. He has limited us to the observation of certain facts: he has taught which nerves convey sensation from the part to the sensorium: he has shown by what nerves the impression proceeds from the sensorium to the muscles, combining them into simultaneous operation. But he has not attempted to explain anatomically what connexions are formed betwixt the roots of the sensitive nerves and the muscular nerves, in what is called the sensorium. We have heard Mr. Bell propose it as a question in his Lectures, how far the motions of parts, excited by titillation or irritation, depend upon the connexions of the nerves in the body, and how far on the connexions of the nerves in the brain. For example, when a creature continues to breathe without its head, or when an acephalous fœtus breathes

without cerebrum or cerebellum, is there not a connexion between the heart and lungs and the muscles of respiration, without the intervention of the brain? He illustrated this question by mentioning, on the other hand, the muscles of the eye acting under the irritation of the eye, as a proof that the brain forms a part of this circle of relations; but the excitement of the heart and the intestines, contracting upon being distended, as other instances of the connexion being formed without the intervention of the brain. Dr. Alison is not aware of the care with which Mr. Bell has impressed in his Lectures, that there is a whole system of nerves, of which the powers are not yet ascertained,—those called the *sympathetic*,—which may, at some future time, be made to resolve these difficulties.

If we have succeeded in proving that the “principle of sympathy,” as it is presented to us by Dr. Alison, is not inconsistent with Mr. Bell’s views, but is confirmed by them, we may expect, as a natural consequence, that Dr. Alison’s objections to the classification of the nerves are nugatory.

The principal cause of his objecting to the system of the respiratory nerves, is founded on his not having separated in his mind the nerves of sensation from the nerves which command muscular action. Thus, because tickling the nostril excites the action of the muscles connected with respiration, he wonders why the branch of the fifth pair, within the nostril, is not included among the respiratory nerves. (P. 200.) We have already proved that nerves of sensation produce various sympathetic actions, by their communication with the sensorium. The nerves of respiration are explained to be those which are distributed on a peculiar class of muscles, to control the actions connected with breathing. The nerve of the nose possesses an influence over the respiratory actions only in an indirect and incomprehensible manner, by its connexion with the sensorium. If we desire to know which nerves produce the phenomena, we must look to the muscles which are called into action: these indicate which nerves were excited, because we know the nerves that go to supply these muscles. We should never think of looking among the nerves of *sensation*, to discover those destined to effect any *motion*. Here, then, appears to be the error of Dr. Alison: he has looked for respiratory nerves among nerves of sensation, when he might have known that the nerves of sensation form a distinct class in Mr. Bell’s system; and he might have found that the fifth pair is included in that class. The peculiarity of the respiratory nerves consists in their being motor nerves, which supply the muscles employed in

the actions of breathing, bestowing upon these muscles those peculiarities which distinguish them from all others, and combining them to act with one simultaneous effort.

It is necessary for us to remember that the respiratory nerves, in their course, are connected with nerves belonging to the other classes; so that the parts to which they go may appear to possess, through them, more endowments than one. If we find an organ, which is supplied by respiratory nerves, possessed with a peculiar sensibility, as the epiglottis, we are to ascribe the sensibility to the sensitive part of the spinal nerve, with which the respiratory nerve is bound up in one sheath; but the power of drawing the small muscles around the epiglottis into action, belongs to the respiratory nerve.

Let us take an example to prove that anatomy points out to us a difference between the nerves of muscular power. For this purpose, let us select the fifth pair and portio dura of the seventh pair; both of which are nerves bestowing muscular motion. The fifth pair is a compound nerve, resembling the spinal nerves, arising by two roots: the nerves proceeding from one root bestow sensibility to the head, while the other bestows power to the muscles of the jaw. The anatomical character of the fifth pair is, that it is distributed to almost every part of the head. It can even be traced most distinctly sending its branches to the muscles of the face. We have said that the fifth pair is a muscular nerve; yet these branches, which it sends into the muscles of the face, are not the motor nerves of the face: they possess no direct power of exciting these muscles to contraction. It would appear from this alone, that these muscles are of a class which require their functions to be bestowed by a nerve different from a common one. This leads us to observe what are the distinctions between the muscles of the jaws and those of the face, to ascertain whether their functions be different. The muscles of the face are subject to changes depending on the quiet or excited condition of the apparatus of respiration. Involuntary actions in the muscles of the eyelids, of the nostrils, and cheeks, are the consequences of the respiratory organs being violently roused. These muscles are much affected in certain passions of the mind, when we observe the whole respiratory organ moved. There is another peculiarity regarding these muscles: in certain conditions they are placed beyond the influence of the will, as in continued breathing, yet they are also subject to the will, as we observe in speech; and we must not omit to notice that the involuntary actions necessary for breathing, proceed at the same time that these muscles are employed, under the direction of the will, for

other purposes. All these circumstances prove that the muscles of the face are endowed with properties which require a nerve different from a common nerve. Accordingly we find that the portio dura, the respiratory nerve of the face, comes from a source in the brain different from that of the fifth pair; that, at its origin, it is close to other nerves, which may be proved to possess similar endowments with it; and that it takes a course different from the fifth pair, for the apparent purpose of combining its branches with the respiratory nerves. Are these not fair grounds for arranging this nerve (the portio dura) among a distinct class from the symmetrical nerves, and giving it a name corresponding to its character?

We shall here notice briefly another of the objections stated by Dr. Alison. He suggests (p. 198,) that the ninth pair of nerves ought to be included among the respiratory nerves, because the tongue is combined, during speech, with the apparatus of breathing: he thinks also that the branches of the fifth pair, which control the motions of the lower jaw, ought to be joined to this class. We conceive that speech may be proved to be a compound operation,—a superadded function, connected with the organ of breathing. If we endeavour to analyse articulate language, we may observe that one part consists of simple inspiration and expiration of the air: the motions of the tongue and of the jaws, and of other parts, may be separately considered as functions superadded to breathing: it is through these motions that the air is split and divided, so as to constitute articulate language. Those actions which produce breathing, whether forcibly expelling the air or gently expiring it, or drawing in the breath softly or with emphasis, form one distinct organ. Those actions which serve to modulate and divide the current of air, may be considered distinct and by themselves. This view of the subject may perhaps afford an explanation why nerves of different classes are seen weaving their branches in the same part.\*

It is apparent that the functions of every organ require very accurate investigation, before we can judge of the effects of the nerves. It is easy to frame objections—for the term *respiratory* is not sufficiently definite to those who have not studied the functions of the respiratory organs; and the word only serves to express the necessary relation which nerves so called have with the actions of respiration.

We, who are pleased with the simplicity and the interest which these views give to the nervous system, may be allowed to express a regret that an ingenious physiologist, conversant with many of those authors who have written on the *theories*

\* See HARRIS'S *Hermes*, p. 319.

of the nerves, should present us their *anatomy* in the same intricacy with which it has been hitherto enveloped.

Let us mark the advantages of physiology grounded on the close observation of Anatomy. First, to have shown the composition of the spinal nerves; that the whole range arising from the spinal cord, having ganglions upon their roots, are sensible nerves; and that the anterior roots are muscular nerves; Secondly, that the fifth pair in the head is of the same composition with the nerves of the spine; Thirdly, that, as this nerve corresponds in structure with the spinal nerves, so it corresponds in function; Fourthly, to have distinguished the nerves of the face into two classes, and shown that they possess distinct endowments; Fifthly, to have traced a set of nerves exclusively distributed upon the muscles of respiration; Sixthly, to have shown, by comparative anatomy, that these nerves do not exist, except when the act of respiration is to be performed:—These form altogether a most brilliant proof of the importance of anatomical investigation.

We have heard some gentlemen say that these new views are very ingenious and very curious; but they have asked, of what use are they in the practice of medicine and surgery? We may reply, that it is impossible, in the early stage of any discovery, to foresee how far its influence may extend. But is it nothing to have proved that palsies, which were supposed to depend on the condition of the brain, may arise from local causes quite independent of that organ, and comparatively of little danger?—To have pointed out to the surgeon the difference between a motor nerve and one of sensation,—and the consequent impropriety of cutting them indiscriminately in cases of *tic douloureux*, as formerly? No surgeon, acquainted with these new views, in operating on the face, would divide the *portio dura*, in the expectation that its functions would be performed by branches of the fifth pair. Neither would he hazard the destruction of the eye, when operating on tumors in the vicinity of those branches of the *portio dura* which pass to the eyelids, by their division.

In conclusion, we would say that it is to be regretted, with regard to papers such as we have been endeavouring to criticise, that the general reader, who may not perhaps be very intimately acquainted with the subject, is more apt to rely on the character of the writer, than to weigh critically the value of his arguments.\*

\* We are indebted for this paper to "a Windmill-street Pupil:" from the manner in which it is executed, we hope he will be induced to continue his contributions.

*A Treatise on Diet: with a View to establish, on practical grounds, a System of Rules, for the Prevention and Cure of the Diseases incident to a Disordered State of the Digestive Functions.* By J. A. PARIS, M.D. F.R.S. Fellow of the Royal College of Physicians, &c. &c.—8vo. pp. 307. London: T. and G. Underwood. 1826.

(Concluded from page 166.)

*Of Drinks.*—WHATEVER may be the contrariety of opinion entertained by different physicians upon the subject of the solid articles of our diet, we shall find it equalled, or perhaps exceeded, by the discrepant views that are maintained relative to the quantity and quality of the liquids in which we ought to indulge, either for the purpose of preserving health, or of lessening the severity of disease. In order that the practitioner may prescribe with advantage the quantity of fluid that should be taken, he must first be acquainted with the aliment upon which the patient lives; for different aliments require different quantities of liquid to assist their chymification. That he may recommend the fluid most suitable in quality, he must deliberately consider not only the bodily but mental condition of the subject. Notwithstanding, however, the necessity of frequently abandoning abstract rules to meet individual peculiarities, such general directions may be given as will be of considerable service in practice.

“By drinking *before* a meal, we place the stomach in a very unfit condition for the duties it has to perform. By drinking *during* a meal, we shall assist digestion, if the solid matter be of a nature to require it; and impede it, if the quantity taken renders the mass too liquid. Those physicians, therefore, who have insisted upon the necessity of a total abstinence of liquid during a meal, appear to have forgotten that every general rule must be regulated by circumstances. The best test of its necessity is afforded by the sensations of the individual, which ought not to be disregarded merely because they appear in opposition to some preconceived theory. The valetudinarian who, without the feeling of thirst, drinks during a meal, because he has heard that it assists digestion,—and he who abstains from liquid in opposition to this feeling, in consequence of the clamour which the partisans of a popular lecturer have raised against the custom,—will equally err, and contribute to the increase of the evil they so anxiously seek to obviate. Dr. W. Philip has stated a fact, the truth of which my own experience justifies, that ‘eating too fast causes thirst; for, the food being swallowed without a due admixture of saliva, the mass formed in the stomach is too dry.’” (P. 118.)

In more than one instance we have known much temporary inconvenience, if not permanent mischief, caused by a rigid

adherence for a considerable length of time to the arbitrary and peremptory commands which have been given, not to permit any fluid to be taken during the meal. Many persons, it is true, can dine without drinking, and suffer no distress from the privation; but in a majority of cases, in which this plan is attempted, we shall find that the patient takes his food without his accustomed relish, and that the process of digestion is more painfully performed than if a *moderate* quantity of liquor were allowed. The observations, then, of Dr. Paris are rational and correct. He lays down no dogmatical rule, by which every patient is to be guided, and by which every disease is to be relieved.

*Water* is considered to be unquestionably the natural beverage of man; "but (says Dr. P.) any objection against the use of other beverages, founded on their artificial origin, I should at once repel by the same argument which has been adduced in defence of cookery. We are to consider man as he is, not as he might have been, had he never forsaken the rude path of nature. I am willing to confess, that, 'the more simply life is supported, and the less stimulus we use, the better; and that he is happy who considers water the best drink, and salt the best sauce:' but how rarely does a physician find a patient who has regulated his life by such a maxim! He is generally called upon to reform stomachs already vitiated by bad habits, and which cannot, without much discipline, be reconciled to simple and healthy aliment. Under such circumstances, nothing can be more injudicious than abruptly to withdraw the accustomed stimuli, unless it can be shown that they are absolutely injurious." (P. 119.)

We must refer to the work itself for some observations upon the comparative salubrity of different kinds of water.

*Tea*.—No subject has excited greater contrariety of opinion amongst dietetic writers, than this common beverage. Some decry it as a poison; others extol it as a valuable medicine. By some, all the beneficial effects of tea are placed to the account of the water thus introduced into the system; and its evil effects are attributed to the high temperature at which it is drank.

"In order to understand the value of the different arguments which have been adduced in support, or to the disparagement, of this beverage, it will be necessary to inquire into its composition. Two kinds of tea are imported into this country, distinguished by the epithets *black* and *green*. Both contain astringent and narcotic principles, but in very different proportions; the latter producing by far the most powerful influence upon the nervous system. As the primary operation of every narcotic is stimulant,



tea is found to exhilarate and refresh us, although there exist individuals who are so morbidly sensible to the action of certain bodies of this class, that feelings of depression, accompanied with various nervous sensations and an unnatural vigilance, follow the potation of a single cup of strong tea; while others experience, from the same cause, symptoms indicative of derangement of the digestive organs: but these are exceptions, from which no general rule ought to be deduced. The salubrity of the infusion to the general mass of the community, is established by sufficient testimony to outweigh any argument founded on individual cases. It must, however, be admitted that, if this beverage be taken too soon after dinner, the digestion of the meal may be disturbed by the distention it will occasion, as well as by its influence as a diluent; the narcotic and astringent principles may also operate in arresting chymification: but, when a physician gives it his sanction, it is with the understanding that it shall be taken in moderate quantities, and at appointed seasons. When drunk four hours after the principal meal, it will assist the ulterior stages of digestion, as already explained, and promote the insensible perspiration; while it will afford to the stomach a grateful stimulus after its labours. With regard to the objection urged against its use on the ground of temperature, it will be only necessary to refer to the observations which have been already offered upon this subject. In enumerating, however, the advantages of tea, it must not be forgotten that it has introduced and cherished a spirit of sobriety; and it must have been remarked by every physician of general practice, that those persons who dislike tea frequently supply its place by spirit and water. The addition of milk certainly diminishes the astringency of tea; that of sugar may please the palate, but cannot modify the virtues of the infusion." (P. 129.)

*Coffee* exerts a different species of action upon the nervous system to that produced by tea, although it is difficult to define the nature of this difference.

"If taken immediately after a meal, it is not found to create that disturbance in its digestion which has been noticed as the occasional consequence of tea: on the contrary, it accelerates the operations of the stomach, and will frequently enable the dyspeptic to digest substances, such as fat and oily aliment, which would otherwise occasion much disturbance. The custom of taking coffee immediately after dinner, as so universally practised by the French, no doubt must counteract the evil effects which the peculiar form of their diet is calculated to produce. Coffee, like tea, has certainly an antisoporific effect on many individuals; it imparts an activity to the mind which is incompatible with sleep: but this will rarely occur if the beverage be taken several hours before our accustomed period of repose. It seems to be generally admitted, that it possesses the power of counteracting the effects of narcotics; and hence it is used by the Turks with much advantage,

in abating the influence of the inordinate quantities of opium they are accustomed to swallow. Where our object is to administer it as a promoter of digestion, it should be carefully made by infusion; decoction dissipates its aroma. The addition of milk is one of questionable propriety; that of sugar, or rather sugar-candy, may be allowed.\* I have known some persons who have never taken this beverage without suffering from acidity in the stomach: where this happens, the practice must be abandoned." (P. 130.)

*Chocolate* and *cocoa* are not be considered as desirable articles of diet, in most instances.

*Soda water*.—The remarks upon this fashionable beverage, to which the caprice of the day attributes many virtues it certainly does not possess, whilst its frequent ill effects are almost entirely overlooked, are brief, but pertinent.

"The modern custom of drinking this inviting beverage during or immediately after dinner, has been a pregnant source of dyspepsia. By inflating the stomach at such a period, we inevitably counteract those muscular contractions of its coats which are essential to chymification. The quantity of soda thus introduced scarcely deserves notice: with the exception of the carbonic acid gas, it may be regarded as water; more mischievous only, in consequence of the exhilarating quality inducing us to take it at a period at which we should not require the more simple fluid." (P. 132.)

*Fermented liquors*.—Dr. Paris ridicules the abuse which has been so indiscriminately indulged in by many authors, against even the moderate use of this class of fluids. He believes, and we think correctly, that there exists no evidence to prove that a *temperate* use of good wine, when taken at seasonable hours, has ever proved injurious to healthy adults. Upon the subject of *beer* he observes, that he believes the fraudulent adulteration of porter to be much exaggerated; and that, at any rate, such adulterations are not carried on in the cauldrons of the brewer, but in the barrels of the publican. The origin of the beer called *entire* is thus explained:

"Before the year 1730, the malt liquors in general use in London were ale, beer, and twopenny; and it was customary to call for a pint, or tankard, of half-and-half,—i. e. half of ale and half of beer, half of ale and half of twopenny. In course of time

\* "Coffee has been often imitated by the torrefaction of various grains. In the 'Fourth Century of Observations,' in the 'Miscellanea Curiosa,' we find a critical dissertation on the coffee of the Arabians, and on European coffee, or such as may be prepared from grain or pulse. DILLENIUS gives an account of his own preparations made with peas, beans, and kidney-beans; but says that made of rye comes nearest to true coffee, and was with difficulty distinguished from it. This fact is curious, inasmuch as a spurious coffee has been lately vended, which is nothing more than roasted rye. The article is well known, under the name of 'Hunt's Economical Breakfast-powder.'

it also became the practice to call for a pint, or tankard, of *three-threads*,—meaning a third of ale, beer, and twopenny; and thus the publican had the trouble to go to three casks, and turn three cocks, for a pint of liquor. To avoid this inconvenience and waste, a brewer, of the name of Harwood, conceived the idea of making a liquor which should partake of the same united flavours of ale, beer, and twopenny. He did so, and succeeded, calling it *entire*, or *entire butt*, meaning that it was drawn entirely from one cask or butt; and, as it was a very hearty and nourishing liquor, and supposed to be very suitable for porters and other working people, it obtained the name of *Porter*."

We pass over the "Estimate of the Nutritive and Digestible Qualities of different Aliments," and the observations upon "the Periods best adapted for Meals, and on the Intervals which should elapse between each," as not containing any thing of particular interest.

Part III. "of Indigestion."—Contrary to the nomenclature adopted by Dr. PHILIP, our present author considers the terms *dyspepsia* and *indigestion* to be synonymous. Indigestion is defined by Dr. Paris "to be a primary disease, in which one or more of the several processes by which food is converted into blood are imperfectly or improperly performed, in consequence either of functional aberration or organic lesion." It is suspected that this definition may be thought to have too comprehensive a signification: but, says the author,

"I may observe, that, however extensive may be the series of symptoms which are thus included under one general head, they will afford, when viewed collectively, sufficient evidence of their relation with the digestive process; although, on a loose and hasty observation, they may not present any general principle of dependency and connexion: if they appear disunited, let the practitioner suspect that he has never viewed them with sufficient reference to that physiological harmony which subsists between the organs in which they arise. Acidity of stomach and urinary depositions are equally indicative of deranged digestion; but the mind that is not acquainted with the relations of the stomach and kidneys, or with the connexion which subsists between the formation of perfect chyle and the discharge of natural urine, will not be disposed to arrange symptoms, so apparently remote in their alliance, under one common head. There are many sympathies subsisting between different functions, which are not perceptible as long as the general balance of health is preserved: this is remarkably the case with the skin and stomach; but, the moment this healthy equilibrium is destroyed, the sympathies become apparent. The physiologist, therefore, without an acquaintance with the body in its morbid states, must remain ignorant of some of the more important circumstances of the animal economy. The same reasoning applies to the study of natural philosophy: the discovery of the existence

of an electric fluid could never have been made, had the natural conditions of matter, with regard to this agent, remained unchanged. The basis of all chemical research is founded upon the same principle: decomposition, and the development of the elements of bodies, are effected by overturning the affinities by which they are naturally combined. These observations are introduced in order to warn the practitioner not to deduce any conclusion against the existence of certain sympathies, on the ground of their not being apparent in a state of health. In a practical point of view, I consider the classifications of the nosologist as of very little utility: they have no solid foundation in nature, but are entirely the work of human reason,—artificial contrivances, for the purpose of assisting us in the acquirement and retention of knowledge. Such an avowal will sufficiently explain the motive which has induced me to throw off the trammels to which I might have been expected to conform." (P. 214.)

Physicians of the present day are justly believed to accuse the alimentary functions of offences which should be charged on other organs. Dr. Paris is sceptical as to the existence of any malady which is entitled to the specific appellation of "dyspeptic phthisis;" a term particularly employed by Dr. W. Philip.

"A person having tubercles in the lungs may have his life protracted for many years, by judicious management, and by avoiding every exciting cause which might kindle the spark into flame, by keeping the circulation in check, and promoting the healthy action of the secretions. On the contrary, the fatal termination may be equally accelerated by want of care; and, above all, by creating a permanent disturbance in the digestive functions. If Dr. Philip designates a latent disease, thus kindled into activity, '*dyspeptic phthisis*,' I have no objection to the term: we are no longer at issue, our difference of opinion is not essential; it is an affair of words, and of words only." (P. 235.)

The *symptomatology* of indigestion is sketched with brevity, but with accuracy. No dyspeptic can peruse it without recognising the fidelity of the description. Our author, perhaps, in common with most writers who treat upon this distressing affection, lays too little stress upon the pain that is frequently felt by dyspeptic patients down the arms, particularly near the insertion of the deltoid muscle, which is generally also accompanied by a numbness of the fingers and weakness of the whole arm, especially on the left side. These symptoms are very common in patients who have for some time laboured under indigestion, and require especial mention, as by many authorities they are looked upon as pathognomonic signs of some organic disease of the heart. In order that the practitioner may conscientiously perform his duty to the

dyspeptic patient, the frequent examination of the fæces is insisted upon; and, as it may occasionally happen that the preservation of them is attended with inconvenience, "it is worthy of notice, that a table-spoonful of sweet oil poured over them, by investing the surface with a film, effectually prevents evaporation, and the consequent stench they might otherwise occasion."

The *indications of cure* in indigestion must be derived from the previous habits of the patient, and the origin and seat of the disorder. That practitioners frequently err by requiring from dyspeptic patients a strict adherence to particular modes of living and management, without reference to former habits, is very certain. Hence the propriety of the observations made by Dr. Paris, in discussing the general plan to be adopted by the practitioner in the treatment of this ever-varying and perplexing malady.

"He must lay down a system of rules for his patient, by which the remote causes of his complaints may be removed; but, in his attempts to reform bad habits, he must be careful to avoid all abrupt transitions, except in those circumstances which have no direct influence upon the vital powers of the body. I should, for instance, be very cautious how I withdrew spirituous stimulants, although I might be well satisfied that the indulgence of such potations had given origin to the disease; but I should not feel any hesitation in at once withholding every species of pastry, or other indigestible matter, without reserve. Upon the same principle, we should gradually diminish the number of meals, where they have exceeded the proper limit, adopting them with skill and caution to the fluctuating circumstances of the patient. The same observation applies to exercise. Nothing would be more injudicious than to expose the invalid, debilitated by sedentary habits, to the effects of sudden and protracted exercise; nor should the person, whose habits have been laboriously active, be abruptly restricted to an irksome state of indolence. The discipline, in such cases, must be graduated according to the previous habits of the patient; to his age, strength, and the nature of his disease. Exercise can never prove salubrious, if it be followed by fatigue. Mr. Abernethy has prescribed to his patients a set of rules, which I shall take the liberty of quoting in this place, in order that I may offer such observations upon their value as my own experience has suggested. '*They should rise early when their powers have been refreshed by sleep, and actively exercise themselves in the open air till they feel a slight degree of fatigue.*' Upon this first rule, I am disposed to make the following comment:—Although we must all agree in the advantages of early rising, yet, in dyspeptic cases, I have frequently known the disease greatly aggravated by the patient suddenly changing his habit, with regard to the hour of rising; and that, if he becomes the least fatigued before his morn-

ing repast, he remains languid and uncomfortable during the rest of the day. A long walk before breakfast, unless the person has been accustomed to the practice, will frequently produce a fit of indigestion. I have already observed, that it is advisable to allow an interval to pass before we commence the meal of breakfast; and, where the weather and circumstances will permit it, this interval should be passed in the open air, but the body should not suffer the least fatigue." (P. 260.)

Dr. Paris observes, that it has frequently been considered doubtful whether the acidity which occurs so frequently in the stomachs of dyspeptic patients, arises from the fermentation of the food, or from a vitiated state of the gastric secretion. He is of opinion that it may arise from either cause, and makes the following observation, which, if correct, is of much practical importance.

"In cases of imperfect chymification, it would appear more generally to depend upon the matter generated by the food; for it is instantly relieved by a dose of carbonate of soda: but where it is symptomatic of some disease in a distant organ, as in that of the uterus, it would seem to be connected with an acid state of the gastric juice, and is not relieved by the administration of alkalies. I am not aware that this distinction has ever been established, but I am so well satisfied of its truth, that I have in several cases been led, from this circumstance alone, to distinguish between primary and symptomatic affections of the stomach. Unrelenting and continued cardialgia ought to lead us to suspect disease in some other organ; although I am not prepared to state that it is never the effect of a primary affection of the stomach." (P. 264.)

The efficacy of alkaline remedies, and particularly the carbonate of ammonia, in removing acidity of the stomach, cannot be doubted; but more is frequently expected from antacid remedies than they are capable of performing. Permanent relief can only be obtained by a change of food; by abstinence from vegetables, if the patient can submit to it without disgust. To relieve the flatulence with which dyspeptics are occasionally so much tormented, Dr. Paris recommends us rather to calm the irritability of the bowels, than to have recourse to the use of carminatives for the purpose of expelling the flatus. He conceives that "it is not the presence of gas in the intestinal canal, but the irritability of the intestines, which renders them impatient of the slightest stimulus of distention, that occasions the distress so common to dyspeptic invalids." Small doses of extract of hyoscyamus, combined with two grains of ipecacuan, are recommended as likely to relieve attacks of flatulence, which have resisted the ordinary modes of treatment. If the dyspeptic disease is connected with irritation of the duodenum, the vinum colchici is

considered highly useful, taking care to accompany its exhibition with occasional laxatives. In every stage of dyspepsia, active purgation is said to be extremely mischievous. We grant the truth of the doctrine in most cases; but we should be inclined to state it with some qualification. We are sometimes called upon, at the commencement of dyspeptic attacks, to clear the bowels by active purgatives, however improper the repetition may be in the latter stages of the complaint. The fashionable remedy of the day, in all classes of society, and in all classes of disease, the white mustard seed, is considered to be a useful medicine in several morbid states of the intestinal canal; but, according to the experience of the author, it is serviceable only in such cases as are marked by alimentary torpor, as may be gathered from the extract given in our last Number.

The medical student will consult this volume of Dr. Paris with much advantage, although, perhaps, the well-informed practitioner may consider it to fall very short of a full and elaborate treatise upon the various subjects which are considered. That it contains but little novelty, cannot in justice be urged as a complaint against the author, as it appears to have been his intention rather to discuss what has been said by others, than to hazard any original speculations, or to make known any new facts derived from his own labours.

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*A Case of Melanosis, with general Observations on the Pathology of this interesting Disease.* By THOMAS FAWDINGTON, Member of the Royal College of Surgeons, London; and one of the Surgeons to the Manchester Lying-in Hospital. With Plates. —8vo. pp. 49. London: Longman and Co. 1826.

To swell a single case into a volume, must be allowed to require considerable ingenuity: it appears, indeed, that the present paper was originally destined for insertion in some of the periodical Journals, "but, (says the author,) owing to the suggestions of some of my professional friends, in whose judgment I am inclined to place great reliance, it has assumed the present form." We can only say that, in our humble opinion, his friends gave him very bad advice, as the circulation which the expedient he abandoned would have given to his pamphlet, would have been incomparably greater than he can now hope for. The case is a very well marked one of *Melanosis*, and the plates in illustration are executed in a very creditable manner; indeed we may be allowed to say, without offence to the author, that they constitute by far the most important part of the volume. These, unfortu-

nately, we cannot communicate to our readers; but we shall lay before them some details, of sufficient interest to recompense the trouble of perusing them: they relate to the dissection of the eye after its extirpation,—to the minute structure of melanosis,—and to its chemical composition.

“*Melanosis of the eye.*—“ A section of the eyeball discovered a black pultaceous tumor, occupying more than one half the interior of the globe, in the situation of the vitreous humour; of which last-named part no trace could be discovered. There were two cavities or cells, filled with a brownish red fluid; one situated at the side of the tumor, the other anterior to it and behind the lens. No trace of the vitreous cells could be discovered. The tunica choroides was entire, and could easily be drawn up from the sclerotica, except at one point towards its superior and internal part, where it ceased to be distinguishable from the general mass of the tumor. The sclerotica was here reduced to an extreme degree of tenuity, and had a split appearance. The retina was quite detached from the choroid by the interposition of the disease, and laid folded across the globe, forming a kind of septum between the black mass and the larger of the two cavities containing the brownish red fluid. The lens was opaque, and of a yellow hue; the capsule thickened, but partially transparent; a fold of retina covered the posterior capsule, or that fold of the hyaloid which lines the vitreous fossula for the lodgment of the lens. The ligamentum ciliare was distinct, and some ragged portions of membrane at the margin of the lens and posterior to the iris, which was perfect, showed a remnant of the ciliary processes. The optic nerve, where it had been divided at the time of the operation, appeared to be sound.” (P. 7.)

*Intimate structure of Melanosis.*—“ On inspecting more closely the product of melanosis, it was found to possess an appearance very similar to that which the contents of a decaying lycoperdon, or common puff-ball, would present, if rendered cohesive by the addition of a small proportion of liquid. It had a deep red-brown or chocolate colour; was slightly fibrous in texture; and, when agitated in water or spirit, and suffered afterwards to rest, a part fell down, as a pulverulent sediment, having the colour and opacity described. The water received a deep tinge from it; the spirit was hardly coloured. This substance, in its most compact form, showed a tenacity equal to that of the brain; and yielded, by expression, a small portion of a reddish fluid, intermixed with fragments of the texture alluded to; but it had become reduced to a thin blackish or red-brown paste, where the softening was completed. The softening was most decided in the centre of the largest tubera, and in these the inner circumference of the cysts was fringed with flocculi of the melanose material, which were connected with it by means of a very fine cellular tissue; and this latter formed the bond of union between the cyst and its contents,



under all circumstances. By the same medium the external surface of the cysts was united to the parts in which they were situated; and these, in a general way, admitted of being easily detached. The cysts did not present the slightest trace of vascularity, nor was there any visible turgescence in the vessels of the enclosing textures. M. Breschet has been at some pains to ascertain whether the melanose tubercle was truly organised; and with this view he threw into the veins and arteries of the contiguous parts some of the finest and most diffusible injections, without discovering any continuity of vessel between the cyst and the substance it contained, or any organisation in the latter. He states the results of these experiments in these words;—*‘Mon injection n’a fait que dénoncer des vaisseaux sur la membrane d’enveloppe et quelquefois il s’en est épanché dans la cavité qui s’est mêlée à la substance morbide.’*” (P. 25.)

*Chemical analysis of Melanosis.*—“From an analysis which he made of it, M. Barruel, a French chemist, thinks that the substance of the tumors in melanosis is a deposition of the colouring matter of the blood, and of fibrine, each under a particular modification, and forming three distinct fatty substances. The first soluble in alcohol at a moderate temperature, and disposed to crystallise in brilliant scales; the second is soluble in alcohol at a boiling heat only; the third is a fatty substance, in a fluid state at the ordinary temperature of the air, of a reddish colour, containing a large portion of the phosphates of lime and iron.

“From a portion of the softened matter, after it had been kept some time in spirit, Dr. Henry obtained the following results, which, through his politeness, I am enabled to give in his own words:

“1st. By filtering through paper, much of the colouring matter remained on the paper, and the colour of what passed through was much less intense.

“2d. Boiling does not destroy the colour, nor even when a little caustic potash has been added.

“3d. It is not changed by acids, even when heated, except by nitric acid, which deprives it of its black colour, and turns it yellow.

“4th. A stream of chlorine passed through the liquid destroys the black colour, and throws down light fawn-coloured flocculi.

“5th. A few grains of corrosive sublimate stirred up with the fluid, precipitates the whole of the colouring matter, and leaves the supernatant liquid quite clear.

“6th and 7th. Nitrate of mercury, and muriate of tin, produce the same effect, but more slowly.

“From these experiments it appears that the black matter is a peculiar secretion, analogous in some properties, especially in the 5th, 6th, and 7th, to the colouring matter of the blood. It would be necessary, however, to repeat and extend the experiments on a larger quantity of the fluid, and in a more recent state, before any just conclusion can be deduced respecting its nature.” (P. 27.)

*Experimental Researches on the Influence exercised by Atmospheric Pressure upon the Progression of the Blood in the Veins, upon that Function called Absorption, and upon the Prevention and Cure of the Symptoms caused by the Bites of Rabid or Venomous Animals. (Dedicated, by permission, to his Majesty.) With an Appendix, containing the original Reports of Baron CUVIER and of Professors DUMERIL and LAENNEC, to the Royal Institute of France, and to the Royal Academy of Medicine of Paris, &c. &c. By DAVID BARRY, M.D. Knight of the Order of the Tower and Sword; Member of the Royal College of Physicians in London; first Surgeon to the Portuguese Army, Surgeon to the Forces, &c. &c.—8vo. pp. 175. London: Thos. and Geo. Underwood. 1826.*

OF this work it is not our intention to do more than give a short notice. To enter into the discussion would require more time, and demand a greater space, than we can afford upon the present occasion. But we consider the subject so important in a physiological point of view, that we should deserve censure if we did not recommend its consideration to our professional brethren, and request them, in perusing it, to throw aside all preconceived notions and prejudices.

Dr. BARRY introduces his work with a short Preface, in which he discusses, with much earnestness and considerable force, the necessity of making experiments upon living animals. From this Preface we extract the following passage:

“The examination of a quiescent machine can only suggest the use of its parts when they were all in movement. Well-directed experiment upon these same parts, actively employed in fulfilling their various functions, either confirms the suggestion, giving it the validity of a law, or at once destroys the whole fabric of a baseless theory. ‘Unicum sæpe experimentum, integrorum annorum laboriosa figmenta refutavit.’ (HALLER, tom. i. Præf.)

“The wisest and the most virtuous men of the ages they lived in spent a large portion of their time in making experiments upon living animals. Those of Harvey were honoured by the presence of his sovereign, who, by that act alone, would have been entitled to a share of the immortality gained by the illustrious discoverer of the circulation.

“Those who have stated that Harvey made but few experiments, and that to these few we owe but little, should have read his works: In these they would have learned that an unlimited supply of animals was placed at his disposal, by the enlightened prince to whom he was physician. His own words are singularly applicable to these candidates for unscientific popularity—‘Qui nihil nisi homines secant.’ (P. xi.)

Again, in the next page, he observes—

"They who inveigh most loudly against experiments upon living animals, and who affect an excess of sensibility, have never made any experiments themselves. They are contented with the exposition of what they, in their wisdom, suppose nature *ought* to do, instead of investigating what she actually does.

"Others talk of needless cruelty. If any useful knowledge is to be obtained by an experiment, none of the means necessary to arrive at this knowledge can be needless, and none else can be adopted without defeating the purpose aimed at: therefore, in useful experiments, there never is needless cruelty, or, in other words, unnecessary pain, inflicted." (P. xiii.)

We fully agree with the general tenor of our author's sentiments upon this subject; but we do conceive that experiments of the most unnecessary and revolting kind have been, and are, too frequently put in practice by pretenders to physiological fame; that they have been multiplied still more wantonly, and the most obvious and established truths doubted merely to give the sceptic an opportunity of proving their truth by a useless display of practical anatomy upon some miserable animal. Against these practices we do most earnestly protest; but we are not so squeamish as to turn aside from experiments such as those which Dr. Barry has instituted, and are well disposed to give him all due credit for their originality, as well as for their ingenuity.

Our readers will observe that Dr. Barry's work consists of two Memoirs, and an Appendix containing the original documents presented by the different medical committees, to whom these Memoirs were entrusted for examination in France. The object of the first Memoir is to prove, from the anatomical structure of animals, as well as from direct experiment, first, the powers by which the blood is propelled through the veins to the heart; secondly, the comparative velocity in moving through the veins and arteries; and, thirdly, that the constant supply of blood to the heart cannot depend solely upon the causes to which it has hitherto been ascribed.

From the reasonings and experiments adduced in this first Memoir may be deduced the origin of the second Essay, on Absorption, which is in fact a corollary from the seventh proposition of the first Essay, which runs thus:

"That the lymph and chyle must be sucked up towards the chest, through the direct communications which the vessels peculiar to these fluids have with the subclavian and other veins. The question of absorption, therefore, which has hitherto puzzled physiologists so much, may now be considered as decided; for it is clear that the open mouth of a vein, or of any other vessel, having

the same kind of communication with the thoracic pumps, must absorb in direct proportion to the sucking power applied to it, and to the pressure exercised upon the matter to be absorbed." (P. 37.)

If, says Dr. Barry, this be well founded, so ought the following corollary—"That the application of a powerful cupping glass to a recently poisoned wound, would prevent the absorption of the poisonous matter."

In this second Essay on Absorption, Dr. Barry has presented us with a short but entertaining account of the historical evidences upon the utility of the application of cupping glasses to poisoned wounds; a practice which, although very ancient, appears to have been employed without any correct theoretical notions of the mode in which the benefits acknowledged to be derived from it were produced.

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*An Elementary System of Physiology.* By JOHN BOSTOCK, M.D. F.G.S. F.R.S. L.S. and H.S. M.R.I.; Mem. and late V. Pres. of the Medical and Chirurgical, and Mem. of the Astronomical and Meteorological Societies of London; Mem. and late Pres. of the Edinburgh Medical Society; Hon. Mem. of the Literary and Philosophical, and of the Historical Societies of New York; Lecturer in Chemistry at Guy's Hospital; Professor of Physiology in the Liverpool Royal Institution, &c. &c. Vol. II.—8vo. pp. 643. London: Baldwin, Cradock, and Joy. 1826.

THE last few years have been very prolific in physiological writings: we have had translations of BLUMENBACH and RUDOLPHI, of RICHERAND and MAGENDIE: the work of Dr. BOSTOCK, however, still remains the only one which is *indigenous*. The second volume of this has just appeared, after rather an alarming interval: this we are informed arose from unavoidable circumstances, and we are led to hope that the third volume will succeed the present without any considerable delay. The plan of publishing a work of this kind in successive parts, is liable to many objections: few choose to purchase a single volume while others are to come, and thus many, who would be glad to avail themselves of it, postpone doing so till the system be completed. If a considerable interval be suffered to elapse, the doctrines contained in the first part may have become obsolete before the continuation sees the light. We would, therefore, respectfully suggest to the author, in justice to himself and to his readers, the propriety of completing his system as speedily as is consistent with the labour and difficulty of the task.

The volume before us, like the one which preceded it, manifests great industry and research, joined to fair and judicious criticism. It is in many respects essentially different from,

and superior to, the works of the continental physiologists, to the translations of which we have above alluded. In these, each writer is guided by his own particular views; which gives to their works more of individuality than ought to appear in a general system: thus, in Rudolphi we have too much of the *organismus*, and in Magendie the little word *moi* becomes rather an eye-sore. This is not the case in the work of Dr. Bostock, in which is contained a very elaborate account of the leading doctrines in physiology, with very copious references to the writings of different authors; so that the student will derive from its perusal a much more general knowledge than from any other work in the English language. The subjects discussed in the present volume are *Respiration, Animal Temperature, Secretion, Digestion, and Absorption*.

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*Modern Domestic Medicine; or, a Popular Treatise illustrating the Character, Symptoms, Causes, Distinction, and correct Treatment, of all Diseases incident to the Human Frame; embracing all the modern Improvements in Medicine, with the Opinions and Practice of the most distinguished Physicians. The whole intended as a Medical Guide for the use of Clergymen, Families, and Students in Medicine. To which is added, a Domestic Materia Medica; a Description of the Virtues, and correct Manner of using the different Mineral Waters of Europe, and the Cold, Warm, and Vapour Baths; a copious Collection of approved Prescriptions, adapted to domestic use; and a Table of the Doses of Medicines.* By THOMAS JOHN GRAHAM, M.D. Member of the Royal College of Surgeons, &c.—8vo. pp. 551. London: Simpkin and Marshall. 1826.

OF the numerous shapes which puffing and quackery assume, Treatises on "Domestic Medicine" are the most injurious to the public: these books profess to give what never can be obtained, but as the result of long and laborious study in the closet, and observation at the bedside of the patient, "a clear and correct description of the nature, symptoms, causes, distinction, and most approved treatment, of the diseases to which the human frame is liable." Every man, at all acquainted with his profession, must be aware that there is no "royal road" to practical knowledge, and that all such attempts are absurd and mischievous. But, if the public are losers by the imperfect and inaccurate information they thus obtain, the medical profession at least ought to be grateful to the manufacturers of popular Treatises, for the increase of business which they procure them. A patient who has long tampered with his constitution,—who has given a complaint,

originally slight, time and opportunity to become severe, or an acute disease to pass into a chronic form,—such patient, we say, is greatly more lucrative in the end than one who applies to his medical attendant on the first symptoms of indisposition.

With regard to the work more immediately before us, it is like all the others on the same subject—a compilation of short popular descriptions of disease, with similar brief and superficial accounts of the treatment. Turning to Cholera (the disease of the present season), we were rather astonished to find, as one of the methods of treating it, that “*forty, sixty, or eighty drops of the diluted acid (sulphuric) may be given in water every two or three hours.*” Upon the whole, however, it is not inferior to its predecessors in the same line; so that, if any unprofessional person will be so foolish as to perplex himself with medical studies, he is likely to do as little mischief with the work before us, as by taking any other for his guide. At the same time, we would just mention, in conclusion, that FALRET, in his excellent Treatise on Hypochondriasis and Suicide, has enumerated among their exciting causes, “*Lecture habituel de Buchan,*” (BUCHAN’S Domestic Medicine;) and, of course, the observation applies equally to all others.

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## COLLECTANEA.

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Floriferus, ut apes, in saltibus omnia libant,  
Omnia nos, litidem, depascimur aurea dicta.

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### PHYSIOLOGY.

#### *Uterus wanting.*

M. RENALDIN lately examined the sexual organs of a female, in whom the uterus was wanting. The woman, aged fifty-two, died from cancerous affection of the stomach; she was very small, and did not exceed in height three and a half feet; her understanding was very little developed; she had never menstruated, and her breasts had never enlarged. The parts of generation were externally well formed; the hymen still partly existed. On introducing the finger deeply into the vagina, there was felt, instead of the neck of the uterus, a small tubercle, scarcely perceptible. Between the bladder and rectum there was, instead of the uterus, a sort of resisting cord, of the thickness of a writing-quill, communicating at one end with the vagina, at the other with the fallopian tubes: these, much widened at the point where they entered the canal, formed there a sort of little sac. There were scarcely any remains of ovaries. On opening the vagina and the little canal at

the end of it: the first was found sufficiently developed, and the other, which was an inch long, was evidently, by its consistence and organisation, the neck of the uterus imperfectly formed, the body and fundus of that organ being entirely wanting. (*Revue Medicale.*)

*Acephalous Monster.*

M. ANDRAL, fils, read, at the Academie Royale de Medecine, the report of a case of an acephalous, sent by M. ALLAUNEAU, a physician at Thouars. The subject of this case is a fœtus of eight months, still born, and without any vestige of brain or spinal marrow, in whom the cavities of the brain and spinal marrow contained only cellular tissue. The bony parts forming the vault of the cranium were very imperfectly developed: for example, of the frontal and occipital bones, there was only an orbital and basilar portion. This confirms the statement of M. G. ST. HILAIRE, that, when the nervous mass is wanting, the bones destined to cover it are wanting also. On the contrary, however, all the nerves were present; but the author has forgot to mention, with sufficient precision, their termination in the cranium and spinal canal. This, then, is another fact to add to those which prove already the possibility of the non-existence of the brain and spinal cord in a fœtus nearly of the full time: but it does not throw any light on the question agitated—whether, in these acephalous monsters, the nervous centres have ever existed? or if, having existed at first, they have been destroyed by some accidental cause? MORGAGNI was of this last opinion; but the chief anatomists of the present day profess the former: first, because the growth of the embryo proves that the nerves develop themselves, not from nervous centres to the organs on which they are distributed, but from those organs to the nervous centres; and, secondly, because comparative anatomy has shown that there are certain fishes whose spinal nerves have no connexion with the spinal marrow, and are separated from it by a liquid. (*Ibid.*)

*Monster, in whom the Extremities were entirely wanting.*

Dr. HASTINGS gives the following description of this monster:  
*Head.*—There is a great quantity of black hair on the head, and the bones are more perfect than they are usually found at birth. The nose is very prominent, and there is a red mark upon it, which extends to the upper lip. The fontanelles are rather small.—*Trunk:* The spine appears perfect, and so are the ribs. All the bones seem larger than they usually are at birth. There is a clavicle and scapula on each side, with muscles attached, which move the scapulæ freely. There is an acromion to each scapula. The glenoid cavities are absent. The clavicle is united as usual to the sternum and acromion. The sternum is natural.—*Pelvis:* The sacrum and os

coccygis are natural. Ossa innominata appear perfect in every respect, excepting the acetabulum, which is wanting. On the right side there is not the least attempt at the production of a lower extremity; but on the left side, at the part of the ossa innominata into which the head of the thigh-bone is generally received, there is a little process in the shape of a finger, consisting of two small bones united by ligaments, and covered with skin and cellular membrane. This projection apparently has muscles attached to it, as it is constantly moved by the cries or struggles of the child. The projection is thick at the base, and runs to a point, and there is a nail affixed to it. The length of the projection is one inch and eight-tenths. The child cries loudly; it is fed, as the mother cannot suckle it.

It was born on the 9th of April, 1824, and died in October of the same year, of inflammation of the lungs. (*Med.-Chirurgical Transactions of Edinburgh*, vol. ii.)

#### PATHOLOGY.

##### *Observations on the Blood.*

M. SEGALAS lately read, at the Academie de Medecine, a Memoir on the Blood, which he considers to be susceptible of morbid alteration during life, thus becoming a frequent cause of disease. The following experiments are adduced as proofs of this opinion:

1st. That concentrated alcohol acts chemically on the blood during life.\*

2d. Diluted alcohol, injected into the veins or bronchia, produces immediate intoxication; the same effect is induced when it is applied to other parts, but more slowly.

3d. The effects of alcohol, introduced into any other part than the veins, are, in their intensity and quickness, in direct relation with the absorbing powers of that part, and are independent of the nerves distributed there, especially of those of the stomach.

4th. That the effects are hastened, increased, or retarded and diminished, by the circumstances which favour or impede the entrance of alcohol into the blood.

5th. That inebriation vanishes as alcohol leaves the blood, and this effect depends on the circumstances being more or less favourable to exhalation.

6th. That the effects of alcohol are in relation, not with the quantity *introduced* into the organs, but with the quantity *in* the blood.

7th. That profound intoxication, and death by drunkenness, are attended with an evident alteration of the blood, and some changes of the solids less evident.

M. Segalas infers from the above theory, that oil and ammonia are useful in drunkenness; perhaps, they exert an action on the blood opposed to that of alcohol. (*Archives Generales.*)

\* The same happens after death; but this action is equally exerted by other chemical agents in producing coagulation of its albumen.



## PRACTICAL MEDICINE.

*Clinical Report of Medical Cases treated at the Hôtel Dieu.*

In the Clinical Report of the practice at the Hôtel Dieu, speaking of the Sulphate of Quina, M. MARTINET says, its action is very variable in different persons. He particularly mentions the case of a man who had a quartan ague for five weeks, and with whom four grains of the salt sufficed to stop the fever completely; the ague was caught in Paris, although the man had for some months before inhabited a marshy country without being seized with it. Although many physicians administer the sulphate of quina in very small doses, (as two, four, or six grains,) and that in the fear of augmenting or provoking any internal inflammation, he remarks, that, with some people, the only means of getting the full benefit of the medicine is to give it in doses of *twelve, sixteen, twenty, or twenty-four grains*; and that in this way only we can immediately cut short the fever.

Among the diseases of the chest, there is a case of loss of voice, apparently dependent on irregular menstruation. A young woman, nineteen years old, had not menstruated for two months, when, towards the end of December, she was seized with pain corresponding to the middle of the sternum, with slight fever. Next day she came to the hospital with these complaints, and nearly entire loss of voice; the breathing was free. She was bled; the fever left her, but the loss of voice continued. At times this patient complained of colicky pains, headaches, and palpitations, which were considered to be dependent on the amenorrhœa, and were treated, without advantage, by applications of leeches to the vulva, and a second bleeding. A blister on the neck did no good to the state of her voice, which, on the contrary, became worse, and at length was entirely lost. The patient had no cough, no spitting; did not lose flesh, and was able to walk about the wards; her breathing was free, when she kept herself quiet, but exertion brought on palpitation and dyspnœa. This state continued two months, when, on March 3d, 1826, the menses appeared naturally. The next day at the visit, to the astonishment of all, she had recovered the use of her voice, although it was yet very feeble. Nature has evidently all the merit of this recovery, yet had any particular remedy, as magnetism or electricity, been used at the time, the whole credit of the cure would have been given to it. This case shows that we should never despair of the restoration of a sense or faculty, when there is no destruction of the organ to account for its loss.

Catarrhal fevers, with gastric symptoms, were frequent, and required the use of purges, diluents, &c. Six cases, where there was white yellow coating of the tongue, bitter taste in the mouth, anorexia, and headaches, were treated in this way by M. RECAMIER. In other six there was a slight phlogosis of the digestive canal, characterised by abdominal pain and slight diarrhœa:

the same mode of treatment was equally successful. Five cases, in which there were symptoms of what the writer calls *catarrhal phlogosis*, without gastric symptoms, the tongue being sometimes red, at others white and papillous, were treated with leeches on the epigastric and iliac regions. This mode of treatment was neither quicker nor more successful than the other.

With regard to the redness of the tongue, and the form it takes, M. Recamier cautions us that it is very necessary, in order to judge exactly of its colour, to observe the manner in which patients put it out. *He thinks the tongue blushes like the face, in consequence of a moral impression*, and that the presence of the physician sometimes produces this effect; whence the error into which a person may be led, who hastily states the tongue to be red.

In one patient, leeches to the anus were useful: a diarrhoea of ten days' duration was stopped by them. In three cases M. Recamier began with small doses of tartar emetic, and then had recourse to general bleedings, to calm the intensity of the fever: they got better like the others, and without any thing particular occurring. It was not so in a young man, aged twenty-one, a mason, who for eight days suffered pain in the region of the cœcum, with high fever, headache, white tongue, constipation, and symptoms of pulmonary catarrh: he was twice bled without benefit; there was even commencing stupor and great prostration of strength; a brownish spot showed itself at the inner part of the arm; the surrounding skin became red, tense, and swollen. Several applications of leeches did not arrest the progress of the inflammation: the brown spot increased; the neighbouring skin became greyish and gangrened, as well as the superficial muscles. Deep cauterisation arrested its progress, but it had already so extended as to occupy all the inner surface of the left arm, and almost the whole of the forearm. When the eschar dropped off, the wound was ten inches long and five broad. In three months and a half perfect cicatrisation took place, and the young man went away cured.—M. Recamier remarked in his lecture, that the erysipelatous phlegmon on the arm had followed the gangrenous spot spoken of, and that consequently the eschar had not been the effect of inflammation. He was confirmed in this opinion from the want of connexion between the puncture made in bleeding and the gangrenous spot, which was more than an inch from it, and from the simultaneous occurrence of a similar appearance in two patients then in the wards; one of whom had partial gangrene of the hand, the other an enormous eschar of the leg and foot, where no previous inflammation could be discovered. M. R. gave it as his opinion, that it was a case of gangrene from a specific cause, as is observed in malignant pustule, save that in the cases just mentioned the morbid principle, instead of having an external origin, originated in the patient himself. Such are the Professor's opinions on the origin of these spontaneous gangrenes, which

occasionally come on during the course of severe catarrhal and typhoid fevers, and of which they are often the fatal crises.

A woman, two days after her confinement, had pain in the left groin, extending to the lower belly. Some applications of leeches removed the swelling of the integuments, and the pain ceased almost entirely; but this improvement did not last long: the pains reappeared, and with them fever, headache, and towards the end diarrhœa. In spite of leeches to the tumor, baths, and the opening of a small abscess, which showed itself externally, she daily got worse, and died shortly after. On opening the body, an abscess, of the size of a hen's egg, was found situated in the pelvis, in the neighbourhood of the third ligament of the left side, and extending to the bladder, womb, and rectum. Besides this, the colon was ulcerated.

Five patients, with acute rheumatic affections of the joints, were treated with the tartar emetic, in doses of six to eight grains in four ounces of liquid, to which was added half an ounce of syrup. The antimony given thus, seldom caused vomiting, but produced abundant stools: the tongue preserved its moisture, and took on no unnatural redness. In general, this plan was followed by relief; the swelling and pain abated, and the duration of the disease was curtailed. He does not say so much for opium, which was given in mass, to some patients, in doses of from two to four grains: it had no effect on the rheumatism; one only experienced from it a slight sleepiness, which soon went off. (*Revue Medicale.*)

*A new Mode of Treatment in Herpes Zoster.*

M. SERRES has lately discovered that the ectrotic plan, used with success in small-pox, has great efficacy in relieving the pain sometimes so severe in shingles. He was led to this discovery by the analogy existing between this disease and small-pox. He relates several cases where cauterising with the nitras argenti had a good effect, and he strongly recommends the use of this means in severe cases. (*Ibid.*)

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STATISTICAL MEDICINE.

*Variolous Epidemic in Sweden.*

The last Number of MAGENDIE's Journal of Physiology contains a notice of the variolous epidemic which prevailed very generally throughout the provinces of Sweden in 1824, and the early part of 1825. The details are abstracted (by Dr. De FERMON) from the official Reports collected and published by the College de Santé of Stockholm; and we regret that our limits will not permit us to give more than a brief sketch of the principal features of this very interesting Memoir. It is introduced into the French Journal by way of appendix to Dr. GREGORY's paper on Small-Pox, which was published in the February Number of this Journal; and the French editors appear to have been struck by the coincidence in the results of the different observations.

We are informed that, since the year 1801, small-pox was never so general in Sweden as to attract attention, until May 1823, when it was brought to Gottenburg by a negro from Amsterdam. From thence it spread to most of the provinces, and ultimately to Stockholm. By the middle of 1825, the epidemic had totally ceased. Among the several Reports addressed to the Stockholm College by the country practitioners, those of M. HEDLUND of Hernæsand, M. NORDBLAD in the district of Helsingland, and M. ROSSAHL in that of Western Gottland, are specially mentioned. They all appear to have been accurate and unprejudiced observers, and the following may be taken as the general results of their Reports.

The total numbers that died of small-pox in Sweden during the two years preceding the epidemic, were only 23. In 1824 (the year of the epidemic), the deaths amounted to 560; of whom, 229 were children under two years of age, 162 between the ages of two and fifteen, and 169 adults. Of this number, 34 were *ascertained* to have been vaccinated, and 69 are noted as doubtful. Most of them were of the lower orders, and, with the exception of four, above fifteen years of age; rendering it probable, as the Memoir observes, that they were vaccinated at a distant period, when the process was less carefully conducted than at present. In the more detailed account which is given of the practice of Messrs. Hedlund and Nordblad, it is obvious that great difficulties were experienced in determining the *efficiency* of the original vaccination. No particular notices, however, are given of the appearance of the scars, either in the mild or fatal cases.

M. Hedlund observes, that the epidemic assumed three different forms,—viz. genuine small-pox, varicella (*watt-koppor*), and fever without eruption. In proof of the connexion of the *latter* with the contagion of small-pox, he asserts that it resembled exactly the initiatory fever of true variola, and that the affection began and ceased with the other forms of the epidemy. He estimates the numbers attacked by this varioloid fever at one-third of those who suffered under the two other forms which the epidemic assumed.

It is gratifying to perceive that the ultimate result of the epidemic was decidedly favourable to the cause of vaccination. Whenever the correctness of the process was clearly and indisputably ascertained, the succeeding disease is said to have *hardly deserved the name of small-pox*. No attempt, however, was made to conceal or to explain away the unsuccessful cases. The facts are simply stated, and the public permitted to draw its own judgment from the general course and tenor of the disease. A table is given of the total mortality occasioned by small-pox in Sweden during the last fifty years, by which it can be made clearly to appear that, in that country alone, vaccination has been the means of saving seventy-two thousand lives!

We think that this brief notice of the Swedish epidemic may not be without its use in this country. It has been the frequent custom

of writers to throw in our teeth the practice of foreign countries, in many of which it is said small-pox has long ceased to exist. In the very last Report of the Vaccine Board, for instance, we read "that, in many parts of the continent, where the method inculcated by this Board has been adopted, the small-pox may be said to be almost, if not altogether, extirpated." The Memoir, of which we have now presented an abstract, may be received as a proof that our neighbours are not a whit better off than ourselves; and that, if the small-pox be not actually among them, the *seeds* of it at least are there, which the accidental landing of a negro may quicken into a formidable epidemic. We think, too, that some of our authorities may take another lesson from our Swedish neighbours, and not consider the good cause in danger because a few persons have been declared to die of small-pox after vaccination. Here we see the Swedish College announcing *thirty-four* deaths after vaccination, without any idea that, by so doing, they are injuring it in public estimation. Such events, in truth, must naturally be expected whenever an epidemic small-pox visits any great country, considering what an infinite number of persons are engaged in vaccinating, and how difficult it is, with every possible care, (at least in our present state of knowledge,) to determine the real extent to which the system of any individual has been saturated by the vaccine process.

#### Vaccination.

Dr. J. GRABNER MARASCHIM, in an Essay published by him on Small-pox modified by Vaccination, states his opinion that vaccination should be renewed every ten years. He has made experiments on the subject, the result of which was, that, in twenty-eight subjects vaccinated by him *after* ten years from the first vaccination, twenty-one showed unequivocal signs of again having the true vaccine disease. The lymph of these was used to vaccinate those who had never been vaccinated, and with complete success. To complete his experiments, he vaccinated fifteen subjects who had been previously vaccinated *within* ten years, and in all of them the inoculation was without effect.

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#### SURGERY.

##### Operation for Imperforate Anus.

This case was the son of Mr. Smith, a tinman, residing at No. 43, Whitcomb-street, and had been born forty-eight hours when the operation was performed, on the 17th November, 1822.

The raphe was the only guide we had for the operation, there being neither hollow nor depression to mark the spot where nature had failed in completing her design. Dr. Granville kindly assisted me at the operation, by securing the child, and by keeping its lower extremities in a proper position during the operation, which was done by making an incision, about an inch and a half

in length, with the scalpel, through the skin and fat, nearly as deep as the incision was long, but narrowing it two-thirds at its fundus. Not having reached the intestine with the scalpel, and considering that we could not so safely proceed further upwards in the direction of the gut with that instrument as with the trocar, the latter was preferred, and directed gently upwards, backwards, and inclining to the direction of the sigmoid flexure of the colon for about an inch; when, on withdrawing the stilette, we found that the intestine had not yet been reached: the stilette was therefore again passed through the canula, which was still kept in the parts, and pushed upwards half an inch farther, when, from a want of resistance, I suspected we had at length succeeded, and, on withdrawing the stilette a second time, mœconium flowed through the canula in considerable quantity: and here it was curious to witness the instinctive straining of the child to relieve itself for the first time, and which would suggest the advantage to be derived from the practice of gently irritating the external skin over the situation of the anus in such cases, with a view of ascertaining the probable distance of the gut from the surface, as before noticed; for, on this occasion, the contorted features of the infant were precisely like those of an adult who was constipated, and straining to relieve himself.

The canula was secured by tapes, and retained in the parts three days. It was then withdrawn, cleaned, and again introduced, the fæces passing through it during that period.

After about a week or ten days, the canula was removed, and an old-made sponge tent introduced in its stead; but, whether from its age, or from there being too much wax in its composition, it did not expand, and consequently did not dilate the parts. Some sponge tents recently made were also tried, and likewise laid aside, from their inefficiency. The common smooth-made bougie, of the largest size, was, after some weeks, substituted, and was found to answer the purpose much better. The tents used were about three inches and a half in length, and, as they were introduced close up to their thickest extremity, we ascertained precisely the distance of the intestine from the surface, by measuring the tent with a scale; the end of the part tinged with bile indicating the termination of the gut, and the verge of the newly-formed anus marking the length of the artificial canal, and which we found to be exactly three inches.

The child's bowels were occasionally constipated for two or three weeks; but this was as frequently obviated by the administration of small doses of the *ol. ricini*. Two months had now elapsed from the operation, when the mother was directed to introduce the bougie for a few hours only every day, and I then took my leave.

At the end of three months, the mother brought the child to my house, and stated that, although its bowels were regular, and the usual quantity of fæces evacuated, she had that morning ob-

served, for the first time, that its urine was in some degree tinged with feces; but, on being further questioned, she stated that she had no reason to believe the urine ever passed per anum. The child fed well, grew, was healthy, and some teeth appeared at the usual period; yet still the urine continued to be occasionally tinged with feces, and, until the morning of the day on which it died, the 29th September, 1823, (being more than ten months after the operation,) I heard of no one circumstance to lead me to suppose that the child had been otherwise than well.

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On examining this child post mortem, the artificial anus was found situated in a hollow, so precisely as if it had been originally natural, that the best anatomist would have been deceived by it; and this fact is the more worthy of record, when it is borne in mind that, at the period the operation was performed, there did not appear the smallest depression or fissure on any part along the line of the raphe, both nates preserving a continuous convex surface.

When the abdominal contents were exposed to view, by reflecting the divided parietes, a somewhat extraordinary disposition of the bowels presented itself; for the small intestines were, apparently, all lying on the left side, resting on the sigmoid flexure of the colon; the intestinum rectum was very large, and distended with air, being at its widest part (viz. five inches above the external aperture, or artificial anus,) *six inches and three-fourths in circumference*; and, passing from the centre above the pubes to the right side, it rested upon the cœcum caput coli, and then turned downwards behind the bladder to the artificial anus. The lower part of the rectum adhered to the bladder by its peritoneal reflexion in the usual manner. A small valvular aperture was discovered between the urethra and rectum. (Mr. COPLAND HUTCHISON'S *Observations in Surgery*.)

*Large Calculus extracted from the Bladder of a Child.*

In the neighbourhood of Lucignano, a young female was delivered of a male child, which was very small and extenuated, although the mother had completed the usual term of pregnancy. From time to time the infant continued to scream violently, and these attacks were followed by intervals of ease. The bowels were at first thought to be the seat of disease, and many purgatives prescribed in consequence. At length the mother observed that these screams were connected with the passing of urine, which was performed with so much straining that a prolapsus of the anus was produced by it. When the child reached its third year, the spasms, in passing even a single drop of water, became more violent, occurring every eight or ten minutes. When first seen by the relater of the case, (June 1825,) the child was much reduced in flesh; there was a prolapsus of the rectum, to the extent of two inches; and the part was much swollen and indurated.

The presence of a stone in the bladder being ascertained, the next day the lateral operation was performed. The introduction of the sound was very easily accomplished, and the incision into its groove performed with the usual facility; but the operator was then greatly surprised on feeling with the index finger a considerable cavity, of an irregular and unequal surface; from whence it appeared that the sound was in reality not in the bladder, but situated between it and the rectum. The discharge of a bloody matter convinced the operator that this was a false opening, in a state of suppuration; and it appeared, upon questioning the mother, that, some weeks prior to the operation, a surgeon had attempted forcibly to introduce a large catheter, not at all adapted to the child's age, had produced a good deal of hemorrhage, and, not meeting with any foreign body, fancied he had penetrated into the bladder. There was some difficulty in finding the right opening into the bladder; but, when that was overcome, the operation was finished in the usual manner, and the child recovered without any accident. The rectum, after the operation, gradually became flaccid, and finally retired into its natural situation.

The stone was of an oval form, a little flattened on the sides; its greatest diameter was one inch seven lines, the smaller not quite an inch; its surface was smooth. (*Annali Universali.*)

*Ununited Fracture of both Bones of the Fore-arm, cured by the  
Excision of the Ends of the Bone.*

A countryman had both bones of the fore-arm broken by a blow with a stick, in October 1819. The fracture was united at the end of a month, but, the man returning too soon to his work, the fracture gave way again. In January 1820 attempts were again made, by proper bandages, &c. for two months, to procure a consolidation of the fractured parts; but without effect. The surgeon, suspecting that the fracture was oblique, and that the union might have taken place in a few points, while the rest of the bone was covered with a fibro-cartilaginous substance, proceeded to rub the ends of the bone together, in the hope of producing adhesive inflammation; but, after another trial of three months, this was found ineffectual. An operation was therefore determined upon, which was performed on the 13th June, and about three lines of the ends of the ulna removed; which bone was fractured obliquely, as had been suspected. The man refused, however, to have any thing done to the radius, the previous operation having been very tedious and painful.

Great inflammation succeeded to the operation, and matter formed not only at the part, but in other situations of the fore-arm, requiring several counter openings to be made. At the end of a month, however, it was found that both bones were perfectly united; and the man, at the end of some months, was enabled to resume his usual avocations. (*Ibid.*)



*A Case of Abscess of the Antrum Maxillare, attended with extensive Curies of Bone.* By Dr. J. DE LA MOTTA.

An abscess in the antrum maxillare burst in the mouth, "over the palatine bones," and the face, particularly under the eye, became considerably swelled: a poultice was applied. Stupor and vertigo came on. An opening was made in the mouth, which gave vent to about an ounce of matter. Some days after, matter pointed below the external angle of the eye; the os malæ was diseased. An orifice was made, enlarged, and the malar bone exfoliated, and continued to do so for a long time. The palatine plates, on the left side, exfoliated. Two teeth were extracted, and matter passed by their sockets.

A probe, introduced through the orifice made at the external angle of the orbit, could be passed into the mouth, through the opening made by the removal of the teeth. A seton was inserted, following the tract above described; and, although this plan of treatment has been reprobated, and its utility impeached, still in this instance it evidently aided in the speedy removal of the carious portion of bone. After it was withdrawn, the discharge continued, attenuated: a strong injection of sulphate of zinc was used, which, being steadily pursued, produced a healthy change. The external and internal orifices soon closed; and, with the exception of a very inconsiderable discharge from the nostril of the affected side, the patient got well, having a depression about the lower lid, much more considerable than is observed on the opposite side. (*Carolina Journal of Medicine.*)

#### MIDWIFERY.

*New Method of Extracting the Placenta.*

Dr. MOJON, Emeritus Professor in the University of Genoa, has communicated, through the *Giornale Critico di Medicini Analitica*, a new method of extracting the placenta from the uterus, in cases of severe hemorrhage after delivery. The method consists in the injection, by a syringe, with some force, into the placenta, through the veins of the umbilical cord, of cold water, slightly acidulated with vinegar; after having first withdrawn as much blood as may be possible from this vein. The sudden impression, and the tendency to separation, which this injected water produces on the tissue of the placenta,—the cold which is instantaneously conveyed by it to the fleecy portion uniting it with the womb, by which the tendency to contraction in the womb is increased,—and the greater weight which the placenta itself acquires from the injected fluid, are probably the several causes contributing to the desired separation. Should the first injection not succeed, it may be repeated a second or third time. This injection is the more easy, from the structure of the umbilical vein,—having no valves, being extremely dilatable in all its branches, and forming altogether more than two-thirds of the substance of the placenta.

This suggestion of Dr. Mojon's having been communicated to many eminent practitioners, both in Italy and France, it has frequently been carried into effect, and, it is alleged, with great general success. (*Giornale Critico di Medicini Analitica.*)

#### MISCELLANEOUS.

##### *On Feigned Diseases of the Heart.* By Dr. QUARRIER.

The most formidable species of simulation which I have had to contend against has been the production of apparent organic disease of the heart, introduced into the royal marine artillery by George Chapman, who had been brought up under a veterinary surgeon, and had acquired a knowledge of the effects and noxious qualities of certain deleterious drugs. This practice was productive of some alarming consequences for a considerable period: some few were permanently injured, having actually produced the disease which they intended to counterfeit, and some others succeeded in obtaining their discharge, notwithstanding the vigilance of the medical officers at Haslar, where they were treated, and the strictest inspection on my own part.

While this man remained in the hospital, we were surprised to find an unusual number of cardiac affections, more particularly in the surgical wards where he was placed. Some who had gone into the hospital with slight gonorrhœa or syphilitic affections, had no sooner recovered from their original disease, than faintness, vomiting, and the utmost degree of nervous irritability, assailed them, leaving palpitations and a variety of dyspeptic feelings. Every curative means was adopted by the physicians and surgeons of the hospital, but with partial success: I say partial success, for some of them became tired of medical discipline, and got well speedily; but the rest continued until Chapman was sent out, when they got spontaneously well; a considerable degree of debility only remaining. I have already stated that Chapman deserted in a few days after being sent from Haslar. He was taken after an absence of some months, was punished, and sent again to Haslar hospital for cure; when, a fortnight had not elapsed before two cases of cardiac disease occurred in the ward where he was, and in men who had hitherto never exhibited the slightest symptom of such an affection. The symptoms assumed a considerable variety of form, with strong epigastric pulsation; and we could not doubt that means had been resorted to so as to produce this curious affection; but we were foiled in our various attempts at searches and surprises, and in discovering the particular means adopted to produce such anomalous symptoms. Chapman was again discharged cured, and very soon deserted a second time. He was taken in a remote part of the country, and succeeded in inducing the staff surgeon of the district militia, who had to examine him, to report his total incapacity for service, in consequence of *organic disease of the heart*. He had taken his medicine, and no one, unacquainted with the peculiar symptoms, and the expression of countenance, induced by the *helleborus albus*, could detect

a person so practised in the art of simulating disease as Chapman was. He had found it profitable, and sold his powders to the seamen and marines at a considerable price, as well as receiving a gratuity upon success. The helleborus albus was the principal ingredient, and the powders were calculated either to produce a sudden and severe illness for the immediate occasion, or to gradually undermine the tone of the stomach and digestive organs, producing every appearance of dyspepsia, attended by great nervous irritability, and violent and continued palpitations! This drug, however, is most uncertain in its action, and it is constantly adulterated in the shops: the smaller doses, therefore, at times produced the most violent symptoms, and frequently deterred the person from persevering. It is fortunate that the adulteration was so great; for it will excite the astonishment of physicians, to know that two scruples, and sometimes a drachm, and even a drachm and a half, of this most noxious drug, was given as a full and effectual dose. The most violent symptoms were produced, threatening immediate dissolution; and I have reason to believe that two men, who came under my immediate inspection in 1821, must have died, had not remedies been immediately administered. Their cases made a serious impression; and, from the peculiar expression of countenance, we had acquired the readiest means of detection. (Mr. C. HUTCHISON'S *Observations in Surgery*.)

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## INTELLIGENCE.

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### MONTHLY REPORT OF PREVALENT DISEASES.

THE last month has presented considerable variations of atmospherical temperature, but by no means so great as that which immediately preceded it. Biliary derangement continues to be by far the most prevalent complaint, and it still assumes the form of diarrhoea, rather than cholera. Upon the whole, the season has, up to the present period, been healthy, and the great majority of the cases we have witnessed have speedily yielded to the exhibition of ten grains of the Hydrargyrum cum Cretâ at night; or, where the purging has been severe, of this combined with a grain of Opium. When these remedies have disagreed, which has very seldom been the case, relief has generally been afforded by ten grains of Rhubarb, with a like quantity of Aromatic Confection, in an ounce of mint-water. In a few cases, the biliary affection has assumed the form of Icterus, requiring and yielding to the usual remedies.

We have seen during the month one case of Delirium Tremens: it was cured by Opium at night, and Ammonia during the day.

Scarlatina has been very prevalent.

It is, perhaps, worthy of remark, that a patient in fever, who was apparently doing well,—having, on the twelfth day, a clean tongue, and pulse at ninety and natural, without any bad symptom whatever,—was very much frightened during the thunder-storm on the evening of the 26th, sunk very rapidly, and died in twelve hours. He was so much afraid of thunder, even when in health, as to be purged by it.

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*Scottish Universities.*—The schism which has so long existed between the Senatus Academicus of Edinburgh and their patrons, the Town Council (or magistrates of the city), and of which some notice was taken in former Numbers of this Jour-

nal, (October 1824, and January 1825,) has at length terminated in the appointment, by the Crown, of a commission of inquiry, to investigate and report upon the constitution and direction of that and of all the other Scottish universities. This prerogative of the King has not been exercised for upwards of a century, though in ancient times such commissions (or royal visitations, as they are called,) have frequently been issued. The present commission consists of nineteen persons, among whom are the Chancellors of the Universities of St. Andrew's, Glasgow, and Aberdeen, the highest law authorities of Scotland, and the Moderators of the last and present General Assembly of the Scotch Church. The selection of commissioners has certainly been made with great judgment, and cannot fail to obtain the fullest confidence of the country. We are informed that they were to hold their first sitting in the College of Edinburgh, on the last day of August; and much importance is attached, in the Scottish metropolis, to their labours.

*Hunterian Museum.*—We have received the following letter with regard to the admission to the Hunterian Museum:—

“Sir,—I perceive that, by a resolution of the Board of Trustees of the Hunterian Museum, admission to that collection is granted to every person presenting a written introduction from a member of the College of Surgeons in London, or a Fellow of the College of Physicians in London; thus excluding from the privilege the whole body of Licentiates, more numerous than the Fellows, and equal to them in medical education,—whose skill and acquirements have been ascertained by examinations similar to their own, and who have been acknowledged equally qualified for medical practice with the Socii themselves.

Why this mark of degradation has been affixed to a class of meritorious individuals, maintaining a respectable station in society, it may be difficult to imagine; whilst the privilege of introducing visitors is granted to the great body of general practitioners and accoucheurs, to persons keeping retail druggist's shops, and even to the most disreputable quacks, who pollute the columns of our newspapers with their obscene advertisements; for it is well known that individuals of this description are members of the College of Surgeons. But it surely behoves the Licentiates in the metropolis to rescue themselves from this disgrace,—to represent to the trustees the injustice of thus excluding them from the opportunity of visiting the museum intended for the use of the *whole profession*, unless they submit to obtain by favour, (perhaps from an individual of inferior rank to themselves in the profession,) that which should have been conceded of right.

In bringing this subject before the profession, in the pages of your Journal, you may probably be the means of inducing some of the older Licentiates, deservedly possessing much influence, to take up the matter, and procure for their degraded brethren an equality of right, at least, with other practitioners.

August 21st, 1826.

A LICENTIATE.”

This letter proceeds upon the assumption that the trustees have unlimited power to admit whom they please. If this be correct, there can be but one opinion of the transaction: if they have not the power, it behoves them to say so. We should like to hear what the Censors have to offer in explanation; for explanation is unquestionably required.

*Attendance on Lectures on Midwifery.*—We understand that, after the 1st of January, 1827, the Company of Apothecaries mean to require of candidates for a licence, certificates of having attended two courses of Lectures on Midwifery.

*Prussic Acid.*—As the taste for physiological experiments seems to gain ground, and may lead many to try the effect of prussic acid on animals, I am desirous that you should caution students, through the medium of your Journal, how they expose themselves to the influence of the emanations of animals destroyed by that powerful agent, when in the act of dissecting them. On two occasions, within the last two months, but more especially after demonstrating to a few medical friends, this week, the singularly striking effects of prussic acid on a female cat, to which fifteen drops of the medicinal acid had been given, and having been exposed during the dissection, for upwards of two hours, to the vapours of the diffused agent, which had instantaneously destroyed the animal, and appeared to have penetrated

every part of its body, I experienced very unpleasant symptoms, such as a slight vertigo and incapability of collecting my thoughts; invincible drowsiness; prostration of strength; yawning; nervousness, with a quick and feeble pulse; anorexia; sinking at the heart; a dread of imaginary evils; and a total want of inclination to act in any way, either bodily or mentally. These disagreeable sensations lasted, more or less, throughout the day, the following night, and the succeeding morning, notwithstanding the use of stimuli and wine; and only gave way, and eventually disappeared, on drinking three cups of strong coffee, with some carbonate of ammonia.

The latter circumstance induces me to remind you, that the medical press have done me injustice in constantly quoting Dr. MURRAY as the person who suggested the administration of ammonia to correct the mischievous effects of prussic acid, and keeping my humble claims out of sight; although I had, long before that gentleman, published the result of my observations in the second edition of my *Treatise on Prussic Acid*, which went to prove the efficacy of liquid ammonia in obviating the ill effects of an over-dose of the acid, or in restoring animals to which a strong dose of it had been purposely administered.

My observations were published in 1820, and Mr. Murray's paper did not appear until the year after, if not later. (*Note from Dr. GRANVILLE.*)

*Grafton-street, Bond-street; August 20th, 1826.*

*Transfusion.* — As a firm believer in the general utility of the operation of Transfusion, when cautiously performed, I feel myself called upon to make a few remarks upon the case which has been so candidly related in the last Number of your Journal; and in doing this, I beg leave to state that I am actuated by no other feeling than a desire to rescue from unmerited obloquy a remedy which promises so much as the operation in question.

The case has gone forth to the world as a *failure*, and so it unquestionably is; but your readers will at once perceive that it is the failure of an operation very different to that which has been recommended, and practised by Dr. BLUNDELL and myself.

The first objection which I have to urge against the operation, as performed in the present instance, is the opening of the jugular vein. It is said (and I have heard this stated by a gentleman who made some experiments on the subject,) that a much smaller quantity of air will destroy life, if injected into the jugular vein, than if it be introduced into a vein of the extremities. This experiment, however, I have never repeated myself, and cannot therefore speak from personal experience.

That air was in the present case thrown into the vein, is, I conceive, a fact which cannot for one moment be doubted: it was proved by the post-mortem examination; and, if we turn our attention to the apparatus used for the injection of the blood, we shall see that it was utterly impossible for it to be otherwise. If I rightly comprehend it, there was an adapting tube introduced into the jugular vein, and through this tube the blood was passed by means of the syringe. Now what is the *unavoidable* consequence of such an arrangement? This small tube must of necessity be full of air, and therefore, at each introduction of the nozzle of the syringe, this quantity must at any rate be forced into the vein; and, although the tube was small, and consequently the proportion of air thrust in at each injection must be small also, yet it is to be recollected that this operation was repeated sixteen times in the short space of twenty minutes; so that, provided there were no *accidental* admission of air, we see there was a *necessary* introduction of sixteen of these tubes full; an occurrence which, I apprehend, is quite sufficient to account for the failure of the operation.

The small size of the syringe is another, and to me a very strong, objection; for it is much more difficult to introduce the blood in a regular and equable stream, than with a larger one. There is another convenience, too, attending the use of a larger syringe, for it enables you to take the further precaution to prevent the admission of air: it is my practice not only to expel the air in the usual manner before I commence one injection, but, in order to avoid the possibility of throwing in any that may by chance have been left behind, I invariably stop before the instrument is perfectly empty, throwing away what remains.

In all cases of desperate hemorrhage, the veins at the bend of the arm are in a

collapse state, and therefore are not readily seen, but I believe it will be found, if one of them be laid bare, and an opening made into it, that it will readily dilate sufficiently to admit the beak of the syringe. This was the case in my last patient: the vein appeared like a small cord, and comparatively empty.

Let it not, however, be supposed that we entertain the chimerical hope of having found a remedy which will invariably be successful: it is a well-known fact, that the most approved and established operations of surgery do occasionally fail. All that we are contending for is this: that it is a remedy from which we may expect much benefit in cases of excessive exhaustion from hemorrhage; and the proportion of successful cases is such, that we can appeal to them with some degree of confidence in the support of our opinion. Mr JEWELL, in common with others of the profession, seems to doubt the utility of injecting a few ounces of blood into the system of a patient who has lost several pounds. Now I am most decidedly of opinion, (and my opinion has not been hastily formed,—it is founded upon actual experiment and observation,) that the success of the operation will be greatly hazarded if too much blood be thrown in. The vascular system can no more bear to be suddenly filled than to be suddenly emptied; and therefore, when a sufficient quantity has been injected to relieve the state of syncope under which the patient has been suffering, I consider it much better to stop the operation, and not run the risk of oppressing the system by injecting too much. After we have succeeded in conveying a certain degree of power to the circulation, we may safely trust to the recruiting powers of the digestive organs; the intention of the operation being by no means the introduction of the same quantity of blood into the blood-vessels which they contained previous to the hemorrhage. Of course, no definite rules can be laid down as to quantity; we must be guided entirely by its effects.

It may not be uninteresting to some of your readers to be informed, that Mr. BINGHAM, of Manchester, has lately performed the operation with complete success. An account of the case is given in the *Edinburgh Journal of Medical Science*. (*Note from Mr. WALLER.*)

111, Aldergate-street; August 1st, 1826.

*New Division of the Thermometer.*—The difference observed at Melville Island between the degrees of temperature indicated by the thermometers, when placed in the same circumstances on the ice, that were taken out by the north-west expedition ships in 1820, has led Lieutenant A. M. SKENE, R.N. to endeavour to remedy this error of thermometers; for which he has invented a new division of the thermometrical scale, taking the fusion of two solid bodies, instead of taking the evaporation and the freezing of a fluid, as has hitherto been done; for we cannot unite at pleasure circumstances conducive to the evaporation of a fluid at a fixed degree of temperature: whereas, on the contrary, the fusion of bodies is only determined by the affinity of the molecules of the bodies the one for the other, and for caloric, and depends on no other cause. Therefore, Mr. Skene takes the difference of temperature between the fusion of ice and the fusion of frozen mercury, as a thermometrical unit, taking care that these two bodies are perfectly pure, which unity he denominates a *degree*, and subdivides this degree into one hundred *minutes* or parts, in imitation of the new division of the terrestrial circle. The fusion of ice will preserve the station it does with nearly all nations that make use of thermometers, and will be designated by the sign 0; it will also divide heat from cold, which have as much two separate existences as any two sensations, and which are attended with the same natural phenomena. It is a curious circumstance, but one of no importance, that 360 degrees, which is the division of a circle, is also the greatest probable heat, using Mr. Skene's scale as according to Mr. Wedgwood's Pyrometer. From observing that the atmospheric heat ranges as much above zero when you approach the Equator, as it ranges below zero when you approach the Poles, Mr. S. is induced to believe that there is the same extent or circle of cold of 360 degrees, as there is of heat. The positive sense, or ascending the scale, will be marked by the sign +; whilst the negative sense, or descending the scale, will be designated by the sign —. This scale will have the advantage of indicating the temperatures of the fusion of bodies; the least fusible by small numbers. It also is a decimal scale. Between the fusion of ice and the

boiling of water, there will be but 2.50, which may be indicated by 2.5+0. Zinc melts at 9.+0; spermaceti melts at 1.+0; frozen mercury fuses at 1.—0, &c. &c. These numbers will be more easy to retain than those which are actually in use.

It is true that the graduating thermometers will become more difficult, and cannot be confided but to artists instructed, or those who possess a standard thermometer; but, far from there resulting any inconvenience, it will tend to do away with the multitude of badly-divided and incorrect instruments, which never agree together in the same circumstances, and to which faith cannot be given when observations of importance are required. These instruments, graduated according to the method of Mr. S., will necessarily be of accord in whatever place they may have been made. (*Notes from Mr. SKENE.*)

*New Work on Diseases of the Skin.*—We are happy to learn that Dr. A. T. THOMSON is preparing for publication a new edition of Dr. BATEMAN's useful Synopsis. No one can have turned his attention to cutaneous affections, without being forcibly struck with the extreme difficulty of conveying a distinct and satisfactory idea of the various forms of eruption by any verbal description, however graphic. WILLAN was fully aware of this when he published his plates; but unfortunately the expence of this work, as originally published by Willan, and subsequently by Bateman, is such as to place it beyond the reach of most students. These disadvantages, we understand, are to be obviated in the edition now preparing, as each disease will be depicted as well as described, while the expence will be extremely moderate.

*Anatomy.*—Mr. TUSON, who was lately House-surgeon to the Middlesex Hospital, has in the press a System of Anatomy, illustrated by plates on a peculiar construction. Mr. Tuson's method is extremely ingenious, consisting of lithographic representations of the bones, over which are laid the muscles, of their relative sizes and shapes. The limb is as it were built up in this way, and the parts may be again raised in succession, from the integuments to the bone. The fasciculus already published contains the muscles of the anterior and posterior parts of the thigh, leg, and foot; and it is proposed to follow it by other fasciculi, embracing the muscles of the other parts of the body. It is also in contemplation to give a Supplement on a similar plan, containing the anatomy of the arteries, veins, nerves, and lymphatics, the abdominal and thoracic viscera, the brain, eye, ear, the fetal circulation, the secretions of bile, urine, semen, &c. Should these objects be accomplished in a manner corresponding to the specimen already published, it will form a work of very great utility to the student, and be highly creditable to the author.

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## MONTHLY LIST OF MEDICAL BOOKS.

[No books can be entered on this List except those sent to us for the purpose; as, in the lists hitherto transmitted, the names of works have frequently been given as published, which have not appeared for weeks, or even months, after.]

A Treatise on a Modified Application of Moxa in the Treatment of Stiff and Contracted Joints, and also in Chronic Rheumatism, Rheumatic Gout, Lumbago, Sciatica, Indolent Tumors, &c. &c. Illustrated by Cases and Plates, &c. &c. Second Edition. By JAMES BOYLE, Esq. &c.—Pp. 219. 1826.

Principles of Dental Surgery, exhibiting a new Method of treating the Diseases of the Teeth and Gums, &c. In two Parts. By LEONARD KOECKER, Surgeon-Dentist, &c.—Pp. 445. London, 1826.

Part III. of a Series of Elementary Lectures on the Veterinary Art; wherein the Anatomy, Physiology, and Pathology of the Horse are essayed on the general Principles of Medical Science. By W. PERCIVAL, Esq. Member of the Royal College of Surgeons, &c.—Pp. 502. London, 1826.

Modern Domestic Medicine; or, a Popular Treatise illustrating the Character, Symptoms, Causes, Distinction, and correct Treatment, of all Diseases incident to the Human Frame, &c. To which is added, a Domestic Materia Medica, &c. &c. By THOMAS JOHN GRAHAM, M.D. &c.—Pp. 661. London, 1826.

## METEOROLOGICAL JOURNAL,

From July 20th, to August 20th, 1826.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

July	Moon.	Rain gauge.	Thermom.			Barometer.		De Lue's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	MAX.	MIN.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20		.10	65	73	60	29.90	29.85	68	72	W	SW	Fine	Rain	Rain
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22			66	69	45	29.61	29.80	70	84	NE	N	Fair	—	Rain
23			56	61	53	29.82	29.89	85	86	N	NNE	Rain	Rain	—
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25			65	72	56	29.90	30.04	66	70	N	E	Fair	Fine	—
26			65	72	52	30.10	30.15	72	68	ENE	E	Fine	—	—
27			64	71	56	30.16	30.12	61	68	ENE	ESE	—	—	Starll.
28			67	73	57	30.00	30.00	63	72	ENE	ESE	—	—	—
29			70	77	60	29.94	29.90	63	64	WSW	SW	—	—	—
30			72	80	65	29.92	29.88	60	55	SW	SSE	—	—	—
31			80	84	69	29.88	29.89	54	54	SSW	NE	Cloudy	—	—
Aug. 1			74	80	63	29.87	29.91	62	69	NE	ENE	Fair	—	—
2			68	78	63	29.84	29.78	89	76	E	E	Fa. & Cl.	Fair	Fair
3		.135	67	73	55	29.78	29.80	83	82	NE	E	Rain	Rain	Rain
4			62	73	58	29.81	29.88	84	78	NE	NE	Cloudy	Fair	Starll.
5			62	69	59	29.85	29.85	84	79	NE	S	Rain	—	—
6		.27	68	68	63	29.90	29.98	70	63	NW	W	Cloudy	—	—
7			71	76	62	30.02	29.99	62	65	W	W	Fair	Fine	—
8			68	78	62	29.94	29.85	71	65	WSW	W	Fine	—	—
9			68	76	61	29.83	29.82	66	71	NE	E	—	—	Cloudy
10		.9	67	72	60	29.81	29.76	72	71	E	SSE	Cloudy	—	—
11		.30	63	65	55	29.71	29.77	76	79	SW	NW	Rain	Rain	Fair
12			65	70	55	29.85	30.01	67	59	W	W va.	Fair	Fine	Starll.
13			67	72	56	30.05	29.91	64	61	S	SE	—	—	—
14			71	76	57	29.79	29.90	62	68	SW	WSW	—	—	—
15			64	73	61	29.92	29.83	70	70	SW	SW	—	—	—
16			64	70	58	29.81	29.85	79	72	W	W	Rain	Fair	Cloudy
17			63	73	65	29.91	30.08	72	70	WSW	WSW	Cloudy	—	Fine
18			73	78	62	30.14	30.18	69	68	WSW	SW	Fair	—	—
19			67	79	62	30.16	30.03	69	70	SW	E	—	—	—

The quantity of Rain fallen in the month of July, was 1 inch and 16.100ths.

The London Medical and Physical Journal professes to contain an account of the most important improvements which are made in Medicine and the collateral branches of Science; and it has been thought that, in addition to the means hitherto adopted for conveying this information, considerable advantage would be deduced from giving each month a history of such Cases occurring at Public Institutions, as might seem calculated to illustrate any points in pathology or practice. On mentioning this idea to the Physicians and Surgeons connected with some of the principal Hospitals and Dispensaries in the metropolis, the utmost readiness was manifested by these gentlemen to have an account of the cases under their care laid before the public; while every facility was promised for obtaining the necessary information. The Editor begs respectfully to express his sense of the liberality which has thus been shown by his professional brethren; and, while he absolves them from all responsibility with regard to the accuracy of the details, he pledges himself to take every means in his power of ascertaining the authenticity of the cases which he publishes; at the same time he requests it to be understood, that he will be ready to correct any misstatement, should such inadvertently be made.

The manner in which it appears to the Editor most eligible to arrange these, is according to subjects,—giving in succession a few cases of the same disease, particularly where there is any difference in the symptoms or treatment, the detail of which is likely to prove instructive. It is obvious that this object cannot be accomplished in every instance; but, with a view to secure its fulfilment as frequently as possible, it is intended to make the Reports retrospective, not confining them exclusively to those cases which are of recent occurrence.

## NOTICE TO CORRESPONDENTS.

Our Correspondents are respectfully requested, in drawing up Cases, to confine themselves as much as possible to matters which are essential, as we have been reluctantly compelled to decline several Communications on account of the minuteness of the details.

It is our intention hereafter, in acknowledging the receipt of Papers, to omit the authors' names in all those instances where the Communication is not suited for publication in this Journal.

Several Papers, acknowledged in the last two Numbers, will be published in the next. The Communications of Dr. Whitlock Nichol, Dr. Venables, Mr. Chevalier, Mr. Hamilton, Mr. Scott, Mr. Waller, Dr. Granville, Mr. Herapoth, Dr. Otto, and "A Licentiate:" some of them will be found in the present Number.

We have answered the Communication from Dr. Hoeker, of Berlin, through the channel pointed out by him. The Numbers of his Journal to which he alludes have not been received.

We refer Mr. H. of Bristol, to page 233 of the present Number for the information he desires. Mr. Professor Mackenzie, of Glasgow, is informed that his Paper has been unavoidably postponed. We shall give it in our next.



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Reprinted from the "New York Journal" of 1850.

# THE LONDON Medical and Physical Journal.

NO 332, VOL. LVI.]

OCTOBER, 1826.

[NO 4, *New Series*.]

For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.—RUSH.

## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

### DISEASES OF THE TESTICLE.

*Cases illustrative of the Pathology and Surgical Treatment of some of the Diseases of the Testicle; with Observations.* By B. C. BRODIE, F.R.S. &c. &c.

#### I. *Wasting of the Testicle.*

WHERE the organisation of the testicle has been destroyed by inflammation and its consequences, the remains of that organ, in some instances, become gradually reduced to a very small size. Here the wasting of the testicle is merely the effect of another disease; but there are other cases in which a wasting of the testicle takes place as a primary affection.

CASE I. *Dissection of a Wasted Testicle, where there were no marks of other disease.*

In a middle-aged man, who died in ST. GEORGE'S HOSPITAL, of phthisis in the lungs, I found the left testicle of the usual size, and in all respects of a natural appearance. The right testicle was wasted, so that it was of not more than one-sixth or one-eighth of the ordinary size. The two layers of the tunica vaginalis adhered universally to each other. On examining the structure of the testicle itself, the tubuli testis, or rather the remains of them, were still perceptible; but they did not admit of being drawn out into threads as usual. The tortuous tube of the epididymis was also distinct, but much diminished in diameter. The epididymis, however, was not wasted in the same degree as the testicle. The vas deferens was pervious throughout its whole extent. There was no thickening or induration of any of the parts connected with the testicle, nor any marks of former inflammation, except we were to regard as such the adhesion of the two layers of the tunica vaginalis to each other.\*

\* The testicle is preserved in Mr. Brodie's collection of preparations of morbid anatomy.

**CASE II. *Wasting of the Testicle, induced by Onanism.***

George P—, a stout young man, twenty years of age, admitted into St. GEORGE'S HOSPITAL, June 12th, 1805. He complained of pain in the left testicle, which was wasted to about one-third of its natural size, soft and flaccid to the touch, wholly unlike the other.

He said that he had never received a blow, nor had he laboured under gonorrhoeal inflammation of the testicle; but that, for five years previous to his admission, he had been addicted to onanism. He had carried this practice to such an extent, that, during the above-mentioned period, he had seldom passed a day without repeating it, at the least, once. Ten months before his admission, he first experienced a severe pain in the left testicle; after this the testicle enlarged in size. The enlargement was soon followed by a perceptible diminution, and from this time the testicle continued to waste. During the whole course of the disease, it had been attended with severe pains in the testicle, and very great depression of spirits. The latter was strongly depicted in the countenance, giving it a peculiarly melancholy and gloomy appearance.

He was directed by the surgeon, under whose care he was, to take the Sulphate of Iron, with Tincture of Cantharides, internally; and blisters were applied to the scrotum.

July 6th.—There was no increase in the size of the wasted testicle; but he said that the pain was diminished, and he now referred it to the groin, rather than to the testicle itself.

July 10th.—He complained of pain in the right testicle also; and he was directed to apply a blister over it.

Soon afterwards, he was made an out-patient.

August 13th.—The pains in both testicles had entirely ceased: the size of the wasted testicle remained unaltered.

September 9th.—He remained in the same state. I did not see him afterwards.

**CASE III. *Wasting of the Testicle, induced by too much indulgence in sexual intercourse.***

In September 1820, I was consulted by a patient, thirty-one years of age, under the following circumstances:—Both testicles were wasted, and reduced to so small a size as to be only just perceptible through the integuments of the scrotum. He sometimes experienced a slight degree of sexual desire, but never sufficient for him actually to be connected with the other sex, and there was never any seminal discharge. He said that he had begun having intercourse with women at the early age of fourteen years; that he had indulged himself to excess while yet a boy, and had continued to do so for several years. When about twenty years of age, he laboured under inflammation of both testicles; which arose from some accidental cause, and was removed by the usual means. Some time afterwards, (but, as far as he could recollect, not immediately,) the testicles began to waste, and his sexual desires to decline; and, in the course of two or three years,

he became what he was when I saw him. I observed that he had very little beard.

## II. *Varicose Veins of the Testicle.*

I have no doubt that cases have occurred in which the veins of the testicle have been varicose to so great an extent, and the consequent sufferings of the patient have been so severe, as to render it advisable for him to submit to the operation of castration. I have not, however, myself met with a case in which I felt justified in proposing such a proceeding to my patient; and the following is the only instance in which I have attempted to give relief by an operation on the veins themselves.

### CASE IV. *Varicocele, relieved by the division of the varicose vessels.*

James Adams, twenty-one years of age, admitted into ST. GEORGE'S HOSPITAL, April 2d, 1817; having been recommended to my care by Mr. Andrews, of Watford, now of Arlington-street. He had varicose veins of the left spermatic chord and testicle, which were principally situated at the posterior part of the epididymis, forming a cluster in this situation. The varicose tumor was not very large, but he suffered at times a very considerable degree of pain, especially in the evening; when the veins were more distended than in the morning.

He was directed to be cupped in the loins; to take moderate doses of Sulphate of Magnesia, so as to keep the bowels gently open; and to apply a cold lotion to the groin and testicle.

Under this treatment no improvement took place. On further examination, I found that the pain was referred almost wholly to the cluster of varicose veins situated at the posterior part of the epididymis; and I was induced to believe that the sufferings of the patient arose from the pressure of the tumor on some contiguous nerve or nerves, and that, if the dilated veins forming it could be obliterated, the pain would be relieved. With this impression on my mind, on the 14th of April, I performed the following operation:

I divided, with a sharp-pointed bistoury, the skin and cellular texture at the posterior part of the scrotum, so as to expose the varicose cluster; and then, by a second incision, I divided the varicose cluster itself, cutting through its centre. When first exposed, the cluster was of about the size of a horse-bean, of a purple colour: on being divided, it immediately collapsed, and there was a slight venous hemorrhage. Some cold lotion was applied, the wound being allowed to remain open, in order to favour the escape of the blood, and prevent its effusion into the cellular texture of the scrotum.

Some inflammation and tumefaction of the scrotum followed the operation; but there was no fever, nor much uneasiness of any kind.

April 21st.—The wound was healing, and the patient was entirely free from the pain which he had complained of before the operation.

May 13th.—The wound was healed: he was free from pain. A slight degree of hardness remained where the divided cluster of veins was situated. Discharged, cured.

### III. *Chronic Inflammation of the Testicle, yielding to the use of mercury.*

It is well known to surgeons that there is one species of chronic inflammation of the testicle, which is very little under the dominion of those remedies which are useful in common inflammatory affections, but which yields readily to the use of mercury. The five following cases are intended to illustrate the history of this disease, when the progress of it is arrested at an early period, that is, previous to the formation of abscess or ulcer, and while the natural structure of the testicle is not materially impaired.

#### CASE V. *Chronic Inflammation of both Testicles, occurring in combination with Disease of the Urethra, and yielding to the use of mercury.*

A. B—, thirty-eight years of age, had laboured for some years under a stricture of the urethra, attended with an unusual degree of irritation, for which he was in the habit of introducing bougies with his own hand. In the summer of 1815, he consulted me on account of an affection of both testicles. They were enlarged to about double their natural size, hard to the touch, knobbed and irregular on the surface. There was pain and tenderness, but not sufficient to prevent his going about his usual occupations, and there was no fever. He said that, a fortnight before, he had been seized with pain in the loins, extending, in the course of the spermatic chord, to the left testicle; and that then this testicle began to be enlarged. A few days afterwards, he experienced pain in the course of the spermatic chord of the other side, and this was followed by an enlargement of the right testicle.

Leeches and cold lotions were applied; the application of leeches was subsequently repeated.

Finding that some fluid was collected within the tunica vaginalis of one side, I made a puncture with a lancet, and about half an ounce of serum was discharged. No amendment took place under this treatment, and fluid became again collected within the tunica vaginalis. I then prescribed the Oxy muriate of Mercury, to be taken in the form of pills. As soon as the mercury acted slightly on the system, the enlargement of the testicles began to subside; the fluid in the tunica vaginalis disappeared; and, in about a month after the commencement of the mercurial course, he was quite recovered, the testicles being restored to their natural condition.

I saw this patient two years afterwards, and he had continued well.

**CASE VI.** *Chronic Inflammation of the Testicle, occurring in combination with rheumatic pains and other cachectic symptoms, and yielding to the use of Mercury and Sarsaparilla.*

A. B—, twenty-nine years of age, consulted me on the 15th of May, 1816. At this time the left testicle was slightly enlarged and indurated, and there was a small quantity of fluid in the tunica vaginalis. The right testicle was enlarged to twelve or fifteen times its natural size. This testicle was hard, somewhat painful, and tender. He complained of pain in the loins and pains in the limbs; there was an ulcer on one thigh, and another on one arm; and there were a few red-coloured eruptions on some parts of his body.

He said that, since the year 1809, he had been subject to pains in the limbs, resembling those of rheumatism: these pains occurred chiefly in the winter, and sometimes disabled him for six successive months. Occasionally he had cough and pain of the chest; and, in 1814, he had glandular swellings in the neck, and an abscess burst in the throat. After this, the pains in the limbs were, on the whole, less severe. The eruptions on the skin first appeared in the year 1812. About Christmas 1815, both testicles became swollen, with severe pain in them and in the loins. The swelling was rapid, attaining a large size in a few hours. In about three weeks, the pain in great measure subsided, but the swelling of the testicles remained.

During these years of ill health, he lost flesh, so that, although in the year 1806 he weighed thirteen stone, his weight was reduced to nine stone and a half, at the time of my being consulted.

I prescribed the following mixture:—R. Decocti Sarsaparillæ Oj.; Extr. Sarsaparillæ ʒij.; Hydrargyri Oxymuriatis gr. ʒ, fiat mistura, cujus sumat partem tertiam ter quotidie. I also directed the application of some leeches to the right testicle.

May 26th.—The fluid was almost entirely absorbed from the left tunica vaginalis. The right testicle was perceptibly diminished in size. The pains in the limbs were relieved.

June 19th.—The right testicle was not more than one-sixth of its former size; it was much softer, and free from pain. Very little fluid remained in the tunica vaginalis of the left testicle. He had no pains in the limbs, nor any remains of the eruption; the ulcers of the arm and thigh were healed; his appetite was much improved. He slept well, was stronger, and had gained flesh.

The sarsaparilla and oxymuriate of mercury were continued for some weeks.

In October, he was free from all complaint.

November 18th, 1817, he continued in perfect health. The right testicle was, in all respects, in a natural state. Occasionally there was a small quantity of fluid in the left tunica vaginalis.

**CASE VII.** *Chronic Inflammation of the Testicle, yielding to the use of Mercury, and occurring in a person who had no other disease.*

John Denham, thirty-four years of age, admitted into St. GEORGE'S HOSPITAL, May 9th, 1815. He said that, five years ago, he had a painful swelling of the left testicle, attended with pain in the loins and lower part of the abdomen. Three weeks after the swelling was first observed, it was punctured by a surgeon, and some fluid was evacuated. According to the patient's own report, he was well afterwards, and continued so until about two months before he came to the hospital, when the same testicle became again swollen; the swelling being accompanied with pain in the loins, in the lower part of the abdomen, and in the testicle itself. In the course of a month, the pain, in great measure, subsided, but the testicle remained enlarged and tender.

At the time of his admission into the hospital, the left testicle was enlarged to four or five times its natural size, of an oval form, but somewhat prominent at the anterior and inferior part; hard behind, elastic anteriorly; it was also a little tender. He had pain in the loins, but none in the testicle, except on pressure. The right testicle was also enlarged, but much less so than the left. He did not complain that it was painful, even when pressed, and he himself had not discovered that there was any disease in it. The form of the right corresponded to that of the left testicle, being not regularly oval, but prominent at the anterior and inferior part.

May 10th.—Leeches were applied to the left testicle, and he was directed to take ʒss. of the *Pilula Hydrargyri* daily.

May 11th.—A puncture was made in the tunica vaginalis of the left testicle, and three ounces of serum were evacuated. The indurated testicle was now more distinctly felt, the elastic part of the tumor having been formed entirely by the fluid in the tunica vaginalis. He continued to take the *Pilula Hydrargyri* in such doses as were necessary to keep his gums moderately sore.

June 3d.—The left testicle was very much diminished in size, and much softer. After the puncture, fluid had again become collected in the tunica vaginalis, but it was now entirely absorbed.

He continued to take the *Pilula Hydrargyri*, using no other remedies until July 18th, when he went into the country. At this time the left testicle was scarcely larger than natural, and free from all induration. The right testicle was still somewhat hard and enlarged, but less so than formerly.

**CASE VIII.** *Chronic Inflammation of the Testicle connected with Rheumatism, and yielding to the use of Mercury.*

Henry Dodge, twenty-eight years of age, admitted into St. GEORGE'S HOSPITAL, on the 17th of May, 1826. Three weeks before his admission, he became affected with pain referred to the right groin and loins; in consequence of which, he was compelled,



after three or four days, to give up his occupations as a smith. He then observed the right testicle to become swollen and indurated. There was no fever attending the inflammation, which seemed to have a chronic character, and, although it interfered with his pursuing his usual labours, it did not prevent him from walking slowly to a considerable distance. He had been subject to rheumatism, and had been affected with this disease just before the inflammation began in the testicle.

At the time of his presenting himself at the hospital, the right testicle was enlarged, and in some parts, but not universally, indurated. The spermatic chord was also enlarged and indurated, as far as it could be traced in the groin. The testicle was tender, and the patient complained of pain in the loins and groin. He was at this time free from any rheumatic affection.

Leeches were applied to the testicle, and on the 17th of May the following pill was directed to be taken every morning and evening:—R. Calomelanos gr. ij.; Pulv. Antimonialis gr. j.; Opii pulv. gr. ss. fiat pilula.

June 6th.—The gums being very sore, the pill formerly prescribed was changed for five grains of the Pilula Hydrargyri, to be taken twice daily. The testicle was much reduced in size.

10th.—The gums were less sore. The bowels were too much relaxed, probably from the use of the mercury.

Some Chalk Mixture and Aromatic Confection were prescribed to be taken occasionally.

13th.—There was little or no pain in the loins, groin, or testicle. The induration and swelling of the testicle and spermatic chord, were much diminished. As the mercurial pills continued to disagree with the bowels, they were discontinued, and a drachm of the following ointment was directed to be applied to the scrotum every night:

R. Ung. Hydrargyri ʒ j.; Camphoræ ʒj. M. fiat unguentum.

17th.—The gums were very sore. The ointment was discontinued.

28th.—Discharged from the hospital, free from disease.

**CASE IX.** *Chronic Inflammation of the Testicles, appearing to depend on Syphilis, and yielding to the mercurial treatment, which relieved the other syphilitic symptoms.*

Luke Pembroke, twenty years of age, admitted into St. GEORGE'S HOSPITAL, June 10th, 1818. He laboured under inflammation of the iris of the right eye. There was dimness of vision, and there were partial adhesions of the iris to the capsule of the crystalline lens. He was covered with a syphilitic eruption, which in some parts still retained the appearance of clusters of distinct papulæ; while in others, which probably had been clusters of papulæ originally, it had now assumed an appearance nearly the same with that of the venereal lepra. The right testicle was enlarged and indurated. The disease seemed to be in its early stage, as the epididymis was not confounded with the rest of

the organ, but could be distinguished from it, forming a separate, hard, knobbed, and irregular tumor. The left testicle was affected in the same manner, but in a somewhat less degree. The testicles were tender on pressure, but not otherwise painful. The patient said that the eruption had appeared about five weeks before he presented himself at the hospital. The affection of the testicles first showed itself about the same period; and the inflammation of the eye took place three weeks afterwards. He gave no account of his having had any primary venereal symptoms, but, from several circumstances, it was evident that no dependance could be placed on this part of his statement.

June 11th.—Blood was taken by cupping from the back of the neck, and a solution of the extract of Belladonna was dropped into the eye.

R. Calomelanos gr. ij.; Opii gr. ss. fiat pilula bis quotidie sumenda.

14th.—He was directed to rub in ʒj. of the Ung. Hydrargyri every night, continuing the pills.

19th.—Gums very sore. The induration and swelling of the testicles were diminished, and the inflammation of the iris had nearly subsided.

The mercury was now exhibited in more moderate quantity. The testicles soon regained their natural condition.

July 15th.—The eruption had disappeared, leaving slight brown stains and depressions.

August 17th.—The use of mercury was discontinued.

21st.—Discharged as cured.

In the cases which have been just described, the disease was arrested in the early stage, and while the testicle was yet capable of being restored to its healthy condition. But morbid action sooner or later terminates in a morbid alteration of structure; and the following case affords an example of the changes which are produced in the organisation of the testicle, where the disease has been allowed to make further progress.

*CASE X. Chronic Inflammation terminating in Disorganisation of both Testicles, and occurring in combination with Disease of the Urethra and Bladder.*

Joseph Heywood, thirty-six years of age, was admitted into St. GEORGE'S HOSPITAL, on the 16th of March, 1814, labouring under the effects of neglected stricture of the urethra, with symptoms of disease in the bladder, and abscess at the neck of the bladder. He also laboured under disease in the testicles; each of which was enlarged to three or four times its natural size. The swelling was of an oval form, in some parts hard, in other parts elastic. The testicles were tender to the touch, but, at the time of his admission into the hospital, they were otherwise free from pain.

The history which he gave of the disease in his testicles was as follows:—In the beginning of December, 1813, both testicles became swollen and painful. The pain was considerable, but not sufficient to prevent him going about his usual occupations. The swelling gradually increased, and the pain continued, in a greater or less degree, until within a few days of his admission into the hospital.

Some time after his admission, an abscess presented itself in the perineum. The abscess was opened, and a large quantity of pus was discharged. This, however, did not materially relieve the symptoms, and he sunk and died on the 17th of April.

On dissection, the mucous membrane of the bladder was found of a dark colour, from inflammation, and the surface of it was encrusted with lymph. An abscess, of the size of a walnut, was discovered in the substance of the prostate gland. The abscess, which had been opened in the perineum, was very extensive, and communicated with the urethra behind an old cartilaginous stricture.

The testicles had become much reduced in size since the admission of the patient into the hospital: they were firm and hard to the touch. The opposite surfaces of the tunicae vaginales adhered universally to each other; but the adhesions were of recent date, and easily torn through. In each testicle, among the tubuli testis, were several masses of solid yellow substance, having no distinct organisation, and making about one-third of the bulk of the whole testicle. In some places this newly formed substance was connected to the glandular structure of the testicle by a moderately firm adhesion; in other places it seemed to lie loose in a cavity. The tubuli testis, for the most part, retained their natural appearance: in a few spots, however, they had been converted into a white substance, having the firm consistence, but not the fibrous structure, of ligament.

This species of disorganisation of the testicle is not uncommon. In some instances, no remains of the tubuli testis are perceptible, a white ligamentous substance being every where found surrounding the unorganised yellow tubercle, in place of the glandular structure. The correspondence in the symptoms may be regarded as in itself sufficient to demonstrate the identity of this disease with that in the cure of which mercury may be said to operate as a specific. If, however, any further evidence be required to prove the truth of this opinion, it seems to be afforded by the following case, in which, after the disease had reached its most advanced stage, and had terminated in the formation of the yellow tubercle in one testicle, it began with precisely the same symptoms in the other testicle, and immediately yielded to the exhibition of mercurial remedies.

**CASE XI.** *Chronic Inflammation terminating in the Disorganisation of one Testicle; afterwards affecting the other Testicle, and yielding to the use of Mercury.*

— Cook, a middle-aged man, admitted into ST. GEORGE'S HOSPITAL, in the winter of 1810, on account of a disease of one testicle. The testicle was enlarged and indurated, and was of an oval shape. At the anterior part there was one spot, which was more prominent than the rest, covered by red skin, and very tender. Believing that these marks indicated the formation of an abscess, and the patient suffering considerable pain, I made a puncture with a lancet: nothing, however, escaped through the puncture, except blood and a small quantity of serum.

The wound made by the lancet became enlarged by ulceration, and the testicle protruded in the form of a fungus. Under these circumstances, (as the disease continued to increase, and the patient's health began to suffer,) it was determined that the testicle should be removed by an operation.

On making a section of the testicle after the operation, the *tubuli* were found in some parts to be still distinct; while in other parts they had the appearance of being converted into a white and somewhat ligamentous substance. In many places, a yellow, solid, unorganised substance, had been deposited among the other structures. A considerable mass of this yellow substance presented itself on the surface of the fungus formed by the protruded testicle, and could be traced nearly into the centre of that organ.\*

The wound made by the operation healed readily; but soon afterwards the other testicle became affected in the same way with that which had been removed. There was pain, which was very severe and nearly constant, in the loins, in the course of the spermatic chord, and in the testicle itself, which now became swollen and indurated.

After having for some time employed leeches and other remedies without advantage, I gave the patient mercury internally, so as to affect his general system; and immediately the progress of the disease in the testicle was arrested, the pain and swelling subsided, and he soon left the hospital as cured.

In this case, which occurred sixteen years ago, it was judged proper that the testicle, which had protruded in the form of a fungus, should be removed by an operation; and even at the present day it may, in some cases, be deemed expedient to resort to such an operation, under the same circumstances. These cases are, however, undoubtedly exceptions to a general rule; and, for the most part, not only castration, but even the excision of the fungus, or the destruction of it by escharotics, may be avoided. The following

\* The diseased testicle is preserved in Mr. Brodie's collection of preparations of morbid anatomy.

history furnishes an example of the treatment, which I have seldom known to fail in cases of this description.

**CASE XII.** *Chronic Inflammation of the Testicle, with Protrusion of the Testicle in the form of a Fungus, yielding to the use of Mercury, combined with other treatment.*

— Arnold, twenty-one years of age, admitted into St. GEORGE'S HOSPITAL, August 23d, 1816.

Three months before his admission, he experienced a very severe pain, referred to the loins, and followed by inflammation of the right testicle. This had not been preceded by gonorrhœa; nor did he know of any cause to which the disease could be attributed. The testicle became swollen, the swelling being accompanied with a constant burning sensation. At the end of ten weeks, it had attained the size of a man's fist. Leeches were applied, without any benefit. Afterwards an abscess formed, and burst. This was followed by the protrusion of what appeared to be a fungus through the ulcerated opening of the skin. At the time of the patient being admitted into the hospital, this fungus was as large as a small orange, covered by a layer of straw-coloured unorganised substance, adhering closely to its surface. On more careful examination, it was evident that what had the appearance of a fungus was in reality the testicle itself, which had protruded through the ulcer of the integuments, so that only a small part of it actually remained within the scrotum. There was very little pain in the tumor, but some degree of pain in the loins. The patient's general health was unaffected.

August 24th.—He was directed to remain in bed in the horizontal position,\* with the scrotum supported by a bandage; and to take ten grains of the *Pilula Hydrargyri* daily. The surface of the fungus was sprinkled with the powder of the *Hydrargyri Nitricooxydum*, finely levigated; some simple cerate, spread on lint, being laid over the fungus afterwards. This application was repeated daily.

30th.—The gums were somewhat sore. Some part of the straw-coloured unorganised substance had separated, leaving a healthy surface.

September 2d.—The whole of the straw-coloured substance had separated, leaving a red, healthy granulating surface. The skin of the scrotum had contracted over the testicle; the bulk of that part of it which constituted the fungus being, in consequence, a good deal diminished.

24th.—The same treatment had been continued. The fungus

\* The maintenance of the horizontal and supine posture, with the scrotum supported by a bandage, appears to be no unimportant part of the treatment in these cases, favouring the retraction of the testicle within the integuments of the scrotum. The *modus operandi* is sufficiently obvious, and corresponds to that by which a long continuance in the same posture will often effect the reduction of an otherwise irreducible hernia.

was now not larger than a large nut; the testicle was felt reduced in size, and covered by the scrotum as usual.

October.—The patient was discharged as cured.

It is not to be supposed, however, that where the disease has proceeded so far as it had in the last instance, that the testicle can ever be, in all respects, restored to its original healthy condition. The state of the testicle afterwards must, of course, depend on the extent to which its organisation has been injured. When it is completely destroyed, the organ continues indurated through the remainder of the patient's life. At first it is larger than natural, but ultimately it becomes much diminished in size. In the winter of 1821, I examined the body of a gentleman, who had for some years laboured under a complicated train of symptoms, which appeared to depend partly on syphilis, and partly on the operation of mercury. In the early stage of his complaints, he had been affected with this disease of one testicle. At the time of his death, the testicle was reduced to the size of a small nutmeg; and, on a section being made of it, there was found in it a mass of solid, yellow, unorganised substance, imbedded in a white, firm, ligamentous substance; and no vestige of the glandular structure was perceptible. It is true that the organ, under such circumstances, can be of no real utility to its possessor; but, on the other hand, the retaining it, for the most part, is productive of no inconvenience; and it enables the patient to avoid the pain and hazard of a serious operation, as well as the disagreeable sentiment which, in many minds, will be connected with the consciousness of having undergone castration.

Although it may not be very important with respect to surgical practice, it would be interesting, as connected with pathological science, to determine in which of the various textures, of which the testicle is composed, a disease, which is thus capable of ultimately causing the destruction of the whole organ, is originally situated. It is evident that it has a more deeply-seated origin than the tunica vaginalis. We might suppose it possible that the fibrous capsule of the tunica albuginea, and the fibrous bands which connect the opposite surfaces of that capsule to each other, and which answer the purpose of supporting the tubuli testis, might be the parts primarily affected, if we did not find the disease sometimes to begin in the epididymis, in which the tunica albuginea, and the fibrous bands which have been alluded to, are alike wanting. The obvious conclusion is, that the morbid action commences in the glandular structure of the testicle; and this opinion is confirmed by the following case and dissection.

CASE XIII. *Chronic Inflammation of the Testicle, terminating in the Disorganisation of the Testicle, and the Protrusion of it in the form of a Fungus; with the Appearances observed on the Dissection of the diseased Organ.*

John Smith, twenty-three years of age, admitted into ST. GEORGE'S HOSPITAL, March 24th, 1819.

Three months ago he fell from a tree, and hurt his left testicle. He had some pain, which subsided in a few minutes. He continued well for three weeks, when he experienced a slight pain in the testicle, which gradually became more severe. About a week after the pain began, a swelling took place at the upper and anterior part, which gradually extended to the whole testicle. In the course of a few weeks an abscess formed, and burst on the anterior part of the scrotum, discharging a small quantity of matter.

At the time of his admission into the hospital, the left testicle was swollen to about four times its natural size. The swelling was hard, and nearly globular. Where the skin had ulcerated, there was a sore as large as a shilling, with an imperfect granulating surface. The spermatic chord at the posterior part, in the situation of the vas deferens, was slightly indurated. There was an occasional pricking pain in the testicle, and also a dull pain in the course of the spermatic chord. He had lost flesh, his countenance was sallow, and his digestion was impaired. He was directed to take the Decoction of Sarsaparilla; and, some days afterwards, the Pilula Hydrargyri was combined with it.

The mercury disagreed with his bowels, so that it was taken very irregularly. His general health became more impaired; the ulceration of the scrotum became more extensive, and the testicle protruded through the ulcerated opening, having the appearance of an ill-conditioned fungus. Under these circumstances, it was thought advisable to remove the testicle by an operation.

On dissecting the testicle which had been removed, it was found to be of four or five times its natural size, and of an irregular shape. That which appeared like a fungus was the glandular structure of the testicle, the membranes covering it being in a state of ulceration. On a section being made of the testicle, it was found to contain a considerable quantity of solid, yellow, unorganised substance, similar to that which was observed in the former cases, but not collected in large masses; and in the intermediate spaces there was common coagulated lymph, in which some remains of the tubuli testis were observable. The vas deferens, where it terminated in the epididymis, externally had a natural appearance; but, on slitting it open longitudinally, a yellow substance was found adhering to its inner surface, apparently corresponding to that which had been observed in the testicle itself; and the membrane lining the vas deferens, after the yellow substance had been removed, was thickened, and apparently preternaturally vascular. This led me to make a similar examination of the tube of the epididymis, by slitting it open in the same manner, as far as its size was sufficient to admit of this being done. The appear-

ances corresponded to those observed in the lower part of the vas deferens; the inner membrane being thickened, with a layer of solid yellow substance adhering to it.\*

It has been seen that, in some of the cases which have been related, a small quantity of serous fluid was found to have been effused into the cavity of the tunica vaginalis. Now, this collection of fluid occasionally amounts to several ounces, and the disease of the testicle thus becomes complicated with a considerable hydrocele. Under these circumstances, the most prudent plan is to subject the patient, in the first instance, to the influence of mercury; and, if the hydrocele should not disappear spontaneously after the affection of the testicle is cured, it may be treated in the usual manner, by the injection of a stimulating liquid into the tunica vaginalis. But we may sometimes fail in making an exact diagnosis, since the formation of hydrocele is not unfrequently attended with some degree of pain in the first instance; and the thickening of the tunics by which the testicle is immediately invested, which is not very uncommon in hydrocele, and which forms no objection to the operation, gives to the fingers an impression very similar to that which is perceived in cases of chronic inflammation of the glandular structure. The following case shows what may be the effect of injecting a hydrocele, where this complication exists; and it also shows how the ill consequences of the injection may be obviated.

*CASE XIV. Chronic Inflammation of the Testicle combined with Hydrocele, in which a succession of Abscesses followed the Operation of Injection, and the disease was ultimately cured by the use of Mercury.*

In April 1817, I was consulted, in conjunction with Mr. FERNANDEZ, by a gentleman from Barbadoes, respecting what appeared to be a hydrocele. Several ounces of fluid were drawn off by means of a trocar, and the tunica vaginalis was injected with equal parts of port-wine and water. When the tunica vaginalis was emptied of fluid, the testicle was felt harder and larger than natural. The inflammation induced by the injection did not subside as usual. An abscess formed, with a moderate degree of pain, which was punctured about three weeks after the operation, and which discharged several ounces of pus. This abscess continued to discharge matter for several days, and then began to heal;

\* In this case, that which appeared to be a fungus was, in fact, the glandular structure of the testicle, which had protruded through an ulcerated opening of the scrotum. There may, however, be fungous tumors of the testicle formed in a different manner, and depending on other causes. My friend Professor MACARTNEY, of Trinity College, Dublin, informs me that he has a preparation, in which the glandular structure of the testicle is perfectly free from disease, while a fungus has arisen from the external surface of the tunica albuginea.



but the bulk of the tumor did not diminish. Several abscesses formed in succession; and, at the end of between two and three months from the time of the operation, the testicle was still a large indurated mass, with abscesses opening on its surface, and discharging matter. Mercury was now administered so as to affect the gums; and, immediately on the gums becoming sore, the testicle began to diminish in bulk, the abscesses healed, and in less than a month the patient was quite well, except that the left testicle was somewhat harder and larger than natural.

Although there are so many cases of chronic inflammation of the testicle in which mercury is useful, there are other forms of the disease in which it is productive of no benefit, or absolutely injurious; or chronic inflammation of the testicle may even be the consequence of the use of mercury acting on a particular constitution, and in this case Sarsaparilla is likely to afford the most effectual means of cure.

CASE XV. *Chronic Inflammation of the Testicle with Abscess, yielding to the use of Sarsaparilla.*

— Jarvis, twenty-seven years of age, admitted into ST. GEORGE'S HOSPITAL, September 16th, 1812.

He had a painful tumor, formed by thickening of the periosteum of the frontal bone; and pains in his shoulders and legs, which were aggravated in the night when warm in bed. The right testicle was enlarged, and slightly indurated; and there had been in it an abscess, which had burst, and left a sore with a margin of red skin. There was little or no pain in the testicle.

He said that, two years before his admission into the hospital, he had a chancre, for which he took mercury internally, going about his occupations as usual. He continued to take mercury for two or three months. Two months after the mercury was left off, he became affected with the pains in his limbs and forehead. He had no sore of the throat, nor eruptions, nor any other symptoms.

He was directed to take Decoction of Sarsaparilla Oj., Ext. of Sarsaparilla ʒij., daily.

When he had taken this medicine for about a week, the pains had nearly left him, and the tumor in the forehead was much diminished.

October 17th.—The tumor in the forehead had nearly disappeared, and he did not complain of pain. The testicle was smaller, and the discharge from the abscess was diminished.

November 1st.—The abscess of the testicle was healed: he was well in all other respects. Discharged as cured.

In this instance, the character of the diseased testicle was such as might have led me to believe that the disease itself was different from that which existed in the cases before described. However, the result of my experience, on the whole, is that our diagnosis, in such cases, ought to be

founded less on the present symptoms, than on the past history; and not so much on the history of the symptoms, as on that of the remedies which have been employed. If chronic inflammation of the testicle begins during a course of mercury, and be combined with such symptoms as mercury is likely to have produced, it is, at any rate, prudent not to administer mercury in the first instance; and the probability is, that a proper exhibition of sarsaparilla will be adequate to the cure.\*

#### FRACTURES OF THE THIGH.

*Cases illustrative of the Treatment adopted at the MIDDLESEX HOSPITAL in Fractures of the Femur*, by Mr. BELL and Mr. SHAW.  
[WITH AN ENGRAVING.]

##### 1. *Oblique Fracture of the Shaft of the Femur.*

CASE I. *treated by Mr. BELL.*—Joseph Shelston, aged twenty-three, a bricklayer, was admitted June 30th, 1826, with a fracture of the right thigh-bone.

He had been employed in building a vault, and, a part being finished, the frame-work, on which the arch of the vault is turned, was removed, in order (as it is termed) *to strike the centre of the arch*. Immediately on the removal of the support, the arch fell in upon him. There was an oblique fracture about the middle of the shaft of the femur. The soft parts were but little injured, and the swelling which supervened was slight; the shortening of the limb was considerable. Both limbs were placed over the double inclined plane; the fractured bone was reduced; an evaporating lotion was applied to the thigh; and a purge of calomel and jalap was administered.

In a few days the tumefaction had subsided, and now the relative situations of the fractured portions became more evident. The upper part was felt projecting outwards in a sharp point, and the lower division of the fracture had been again retracted about an inch. The thigh was extended, and splints and a bandage were applied. On visiting him next morning, the above displacement of the extremities of the broken bone had recurred; and, although care was taken to replace them, still, on each returning day, the bones were found to have resumed their former position.

In order to correct this projection of the upper part of the fracture, caused by the action of the gluteal muscles, the fractured limb was placed on a double inclined plane, similar to that represented in the *engraving*; and the leg and foot were carried outwards, so as to bring the lower portions of the fractured bone in a line with the upper. The whole limb resting on the inclined planes, thus formed an obtuse angle with the trunk of the body. By this

\* It is not in our power to insert the whole of this communication in the present Number of our Journal. The remaining part of it will be published in the Number for November.—Ed.

means the fractured bone was kept perfectly straight, and the broken extremities were retained in apposition. Thus the limb preserved its proper length, and shortening was effectually prevented.

He was discharged cured August 28th, at which time there was not the least shortening, or other defect of the limb. Indeed, it was impossible for the bystander to distinguish which thigh had been fractured.

**CASE II. treated by Mr. SHAW.**—George Crump, aged fifteen, was brought to the hospital July 9th, 1826. In attempting to jump over a hedge, he had fallen, and broken his right thigh-bone. It was fractured rather obliquely, near its middle. There was great distortion and shortening of the limb; the knee fell so much inwards, that the thigh formed in itself a complete semicircle.

The fractured portions were replaced, and both extremities were put upon the double inclined plane, as in the former case; but with the like unfavourable result: for, as soon as the tumefaction had diminished, the upper part of the fractured femur might be distinctly felt projecting outwards. All attempts to retain the broken extremities of the bone in their proper situation were futile, until the position of the limb adopted in the former case was had recourse to. The leg and lower portion of the fractured femur were carried in a direction outwards, and then placed on the double inclined plane already noticed: thus the extremity was made to form an angle with the trunk of the body, as before described.

This position was quite effectual: the thigh was rendered perfectly straight, and the broken ends of the bone were brought into accurate coaptation, and were without difficulty thus retained. He was discharged August 28th, 1826. There was no perceptible difference in the two thighs, either as regarded their length or straightness.

The acknowledged difficulty attending the successful treatment of fractures of the thigh-bone, has led to the recital of the above cases. Indeed, the deformity which so frequently accompanies the union of the broken femur has, with much reason, been considered as an opprobrium to surgery.

There can be no better proof of the difficulties of a subject, than the employment of a variety of means to overcome them; and it is a fair inference, that, whilst such various means continue to be employed, the opposing obstacles remain still unsubdued.

The numerous methods resorted to in the treatment of fractures of the femur, are well known. Indeed, so various and opposite are they, that it is obvious the correct principle is not yet generally understood: for, among our first surgeons, few can be found who agree as to the most successful method

of cure. No better exemplification of the truth of this statement can be afforded, than the practice in our public hospitals.

That excellent surgeon, POTT, was the first to point out the importance of relaxing the muscles of a fractured limb. He showed that want of success in the treatment of fractures was attributable to neglect of this principle; and that a well-judged position of the limb would greatly conduce to a proper union.

This rule, of relaxing the muscles of the limb by position, may be considered of the greatest value in the treatment of fractures of the shaft of the femur: for it is acknowledged that the shortening and deformity, which are but too often the results of this accident, are produced by the numerous strong and powerful muscles which move this bone.

The obvious principle, therefore, to be attended to in the treatment of the fractured thigh bone, is to place the injured limb in that position which most effectually relaxes these muscles; and the double inclined plane appears to answer this intention better than any other form of apparatus as yet proposed.

The distortion consequent on fracture of the femur, depends upon the upper portion of the fractured bone being displaced by the action of the strong muscles which are inserted into it. This displacement occurs in a direction upwards and outwards, the gluteal muscles dragging it in the latter direction, whilst the psoas and iliac elevate and rotate it outwards. It will also be perceived that these muscles must act with greater force and advantage when the fracture is high in the shaft of the femur; and, consequently, that the projection outwards, and the elevation, will be increased in proportion as the bone may be broken high up and near the trochanters.

From the above cases, it appears that the success attending the employment of the double inclined plane, in fractures of this part of the bone, may be rendered still more perfect by further attention to position, and by a slight alteration in the apparatus. Instead of the double inclined plane for both extremities to rest upon, an apparatus fitted for one only will be necessary: for, by this contrivance, we have it in our power to give to the limb whatever direction, with relation to the trunk, we may think proper.

These cases also show that, when a fracture occurs in any part of the shaft of the femur, (*unless it be within two or three inches of the trochanters,*) placing the injured limb on this double inclined plane, in the position alluded to, prevents any chance of the extremity being shortened or

distorted. This position consists in the inclination of the thigh and leg outwards, so that they may form an obtuse angle with the trunk of the body. By these means all the muscles will be relaxed; the lower portion of the fractured bone will be brought into a line with the upper; the broken extremities will be retained in due apposition; there will be no further tendency to displacement, and thus shortening of the limb will be prevented.

Although we have no cases at present to illustrate this plan of treatment in fractures of the upper part of the thigh-bone within a few inches of the trochanters, still, from the recollection of cases,—from the numerous preparations of fracture at this part of the femur which we have seen,—and from the delineations of similar preparations in Sir ASTLEY COOPER's work\* on Dislocations and Fractures, and in Mr. BELL's work on Injuries of the Spine and Thigh-bone,† it is evident that the fracture at this part of the femur is, of all others, the most liable to be followed by the elevation and dragging out of the upper portion; and this to so great an extent as to threaten the most serious distortion, and even to render the patient lame for life.

H. S., a countryman, applied at this hospital, a few weeks since, for advice, having suffered from a fracture of this kind. The upper part of the fractured bone projected outwards in a most remarkable degree, and it overlapped the lower, so that nearly the whole diameter of the cylinder of the upper portion might be felt. In the treatment, both extremities had been placed over the double inclined plane, and the fractured thigh had been supported by bandages and splints. Although six months had elapsed since the occurrence of the accident, he remained still so weak in the limb as to be unable to walk without a stick. This case shows the inefficacy of the common double inclined plane for both limbs, in the treatment of this fracture.

In a case of this kind, the injured limb may be placed on the double inclined plane here described, the direction of which outwards must, for reasons already stated, be increased, and the trunk of the body must be elevated. By such position, the gluteal, psoas, and iliac muscles will be relaxed, and distortion prevented.

The additional support afforded by bandages and splints is in all cases necessary.

The Engraving shows the position of the limb alluded to in the foregoing cases. It will be observed that the inclined

\* Plate XII fig. 6.

† Plate VII. fig. 1.

planes, being of equal length, and resting on the same level, must have the same inclinations. At the angles under the ham and the nates, there are hinges; and the part under the heel is moved on a rack, formed in the lower frame-work. Thus the angle formed by the planes may be increased or diminished at pleasure.\* The difference between this apparatus and the fracture-box of PERIT, is at once manifest. The inadequacy of the latter to answer the ends intended, must be equally evident; and it is only a matter of astonishment how the two could ever have been confounded.

## II. *Transverse Fracture of the Condyles of the Femur.*

CASE III. *treated by* MR. BELL.—James Soundy, a strong athletic man, about fifty-six years of age, was admitted into the Middlesex Hospital, June 8th, 1826. He had received a kick from a horse, on the upper and inner part of the right leg, just below the head of the tibia. He was brought to the hospital shortly after the occurrence of the accident.

There was much tumefaction and swelling about the knee-joint and condyles of the femur, and too great an extent of lateral motion between the bones of this part. This was found to depend upon a transverse fracture of the femur, immediately above its condyles. A crepitus might be easily felt in this situation.† The knee-joint appeared to have received but little injury further than what must necessarily have arisen from the straining of its ligaments, and from the contiguity of the fracture.

The thigh and leg were placed in the *straight position*, and confined by junks. Leeches were applied to the knee, and afterwards an evaporating lotion. He was well purged with calomel and jalap.

Much inflammation about the knee-joint followed, which was actively combated by local depletion. The parts about the joint became much thickened: this was evidently caused by an extensive deposit of coagulable lymph. As soon as the inflammation was sufficiently subdued, bandages and splints were applied.

Passive motion was attempted about the fourth week, but so much pain and heat were induced, that it became necessary to discontinue it. When this excitement had subsided, a stimulating liniment was applied. Passive motion was afterwards employed, and he was discharged August 1st, having regained considerable motion in the joint.

\* There is a provision for fitting a foot-board to the apparatus. By this contrivance, the foot is easily fixed; and, while this assists in keeping up a certain degree of extension, it at the same time steadies the whole limb. To have put it in the drawing, would have rendered the whole less distinct.

† The crepitus communicated in fractures of the extremities of the long bones is peculiar, depending upon the cancellous structure of these parts. It is not easily described, but is soon recognised after being once felt.

He called at the hospital September 7th, the use of the joint being then nearly perfect.

CASE IV. *treated by Mr. BELL.*—Maria Banfield, aged twenty-three, was brought to the Middlesex Hospital, on the 24th July, 1826. Whilst carrying a pail of water down stairs, she slipped, and fell. The right knee and leg were bent under her, and received the whole weight of the body.

There was found to be a transverse fracture just above the condyles of the right femur, which communicated a crepitus as peculiar as that in the former case, although less distinct. Fifteen leeches were immediately applied, and afterwards an evaporating lotion. The bowels were freely opened; and the limb was placed in a *straight position*. Little swelling or tumefaction followed, so that in a few days the splints and bandage were applied, which retained the fractured limb perfectly straight, and without motion.

In the fourth week, passive motion was begun; and she was discharged August 29th, with the motion of the joint completely restored, and with perfect power over the limb.

It may be observed that, in this class of cases, the fracture being low down, the powers which tend to distort the upper part in the fractures of the shaft are comparatively weak; and that the broad opposing surfaces presented by the fractured extremities of the bone must be effectual in preventing displacement. In addition, it may also be remarked, that, if this fracture were placed on the double inclined plane, the weight of the leg and foot would pull down and rotate the condyles, and thus displace the lower portion of the fracture.

It is unnecessary to add any cases of fracture of the neck of the femur, (although two have recently occurred at this hospital,) because the plan of placing both extremities over the double inclined plane, and swathing the pelvis and trochanters with a bandage or belt, is now generally adopted. The patient is to be kept in this position for six weeks at least, as it is next to impossible to decide before-hand whether such a fracture be so circumstanced as to admit of union or not.

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#### OPHTHALMIA.

*Practical Observations on Catarrhal Ophthalmia, and on the contagious Ophthalmia to which it gives rise; with Cases.* By WM. MACKENZIE, Andersonian Professor of Anatomy and Surgery; and one of the Surgeons to the Glasgow Eye Infirmary.

THE ophthalmiæ which are most frequently excited, in adults, by atmospheric influences, are these three—the *catarrhal*, the *rheumatic*, and the *catarrho-rheumatic*.

Although the distinction of these three diseases must be

familiar to all who have studied in the German schools, or by reading made themselves acquainted with the works of the German oculists, I believe the distinction is but rarely attended to in this country, even by oculists, and still less by general practitioners. Some, indeed, have attempted to throw ridicule upon any thing like a distinction of genera and species in the various diseases of the eye. An ophthalmia, a cataract, and an amaurosis, are sufficient nosological distinctions for their general and superficial views. At the same time, I am certain, not only of the reality and truth of the distinctions to which I have already referred, and of many others among the inflammatory diseases of the eye, not yet generally received,—but I am convinced also, after considerable experience in the treatment of these diseases, that such distinctions are absolutely necessary to be known, if we mean to treat the various kinds of ophthalmia with success. The catarrhal, rheumatic, and catarrho-rheumatic ophthalmia, for example, cannot be treated successfully by one common method. Treated without discrimination, they but too often prove destructive of vision; whereas, by appropriate treatment, they are in general easily managed. The appropriate treatment of the rheumatic ophthalmia, however, is not at all adapted to the catarrhal; while the remedies which in a few days subdued the catarrhal, would only exasperate the rheumatic.

The first of the three diseases above named is an affection of that muco-cutaneous membrane which lines the eyelids, and covers the anterior third of the eyeball, the *conjunctiva*; a continuation at once of skin, liable to eruptive or cutaneous diseases, and a continuation of the vast mucous membrane which lines the respiratory and alimentary passages, liable therefore to puro-mucous or blenorrhœal diseases. The second is an affection of the fibrous *sclerotica*, and surrounding fibrous membranes. In the third, both the *conjunctiva* and the *sclerotica* are affected, and the symptoms of the catarrhal are united to those of the rheumatic ophthalmia.

I have been in the habit of speaking of inflammation of the conjunctiva, under the name of *conjunctivitis*; and of those inflammations of that tunic which affect it as a mucous membrane, under the generic name of *conjunctivitis puro-mucosa*. Of this genus, the following are the species—

1. Conjunctivitis puro-mucosa atmospherica; Catarrhal ophthalmia.
2. — — — contagiosa; Egyptian.
3. — — — leucorrhœica; Ophthalm.-neonatorum.
4. — — — gonorrhœica.

The inflammation in the Catarrhal Ophthalmia, which is by



far the most common disease of the eye in adults, is almost entirely confined to the conjunctiva and Meibomian follicles. The mucous secretion of the membrane is increased in quantity, and occasionally becomes opaque, thick, and puriform; but in many cases it remains transparent, and, from its superabundant quantity, merely renders the eyelids more than usually moist and slippery; while the Meibomian secretion, also increased in quantity and changed by disease, concretes on the edges of the eyelids and amongst the eyelashes, and binds them together during the night.

In mild cases, the redness is chiefly in the conjunctiva lining the eyelids. On the white of the eye, the vessels are arranged in a net-work, and can be moved in every direction, by pressing the eyelid against the eyeball with the finger, showing that they reside in the conjunctiva. In severe cases, chemosis takes place, even to a great extent; so much so, that if general treatment only be employed, such as blood-letting and purging, while local means are neglected, the cornea may lose its vitality, burst, and slough, from the mere pressure to which the eye is subjected, and thus vision be destroyed. I attribute the destruction of the cornea in severe cases of catarrhal ophthalmia, as also in the contagious or Egyptian ophthalmia, and in the ophthalmia of new-born children, not so much to a vital as to a mechanical cause,—not to excessive inflammatory action in the cornea itself, but rather to the pressure caused by the enormously distended conjunctiva of the eyelids and eyeball. Other causes, no doubt, concur, in the puro-mucous inflammations of the conjunctiva, to produce opacities of the cornea, detachment of its conjunctival covering, and ulceration; and, in particular, the maceration of the cornea in a flood of purulent fluid, not sedulously removed by injections. But the destruction of the cornea by sloughing, I am disposed to refer more to pressure and mechanical death, than to violent inflammatory action.

In the catarrhal ophthalmia, the patient uniformly complains of a feeling of sand in the eye, or of broken glass rolling under the upper eyelid; a sensation which never attends the pure rheumatic ophthalmia, and may therefore be regarded as strikingly *diagnostic*. Moreover, in the catarrhal ophthalmia, the patient is usually free from headache; whereas, in the rheumatic, one of the most remarkable symptoms, and by far the most distressing, is circumorbital pain, severely aggravated during the night. When headache does attend catarrhal ophthalmia, it is seated across the forehead, and is felt most in the morning.

So distressing, even at the beginning of an attack of

catarrhal ophthalmia, is the sensation as if sand or some other foreign body were under the upper eyelid, that I have repeatedly been requested to visit patients, in whom this disease was commencing, who supposed that some particle of dust had actually got into that situation; and in one instance I was called to visit a medical gentleman, who was so convinced, from the feeling which he experienced, that this was the case, that he had made various attempts, with his dressing probe, to free himself from the imaginary offending substance.

Atmospheric changes, and especially exposure to cold and wet, are the exciting *causes* of this disease. Night watching, and exposure to the night-air in a state of intoxication, are frequently the occasions which give rise to catarrhal ophthalmia. Wet feet is a cause which some of my patients have particularly mentioned. An individual who has once laboured under this disease, is more likely to be attacked again: one of my patients had three attacks between May and January.

In many instances, the catarrhal ophthalmia has been known suddenly to attack a great number of persons, who happened to be exposed to the same general exciting causes. ASSALINI relates, for instance, that, in May 1792, several battalions of the Duke of Modena's troops arrived at Reggio, in order to quell some riots. These troops passed the first night after their arrival under the spacious porticoes of a convent looking to the north, in the lowest part of the town, and near the trenches of the citadel. Many of these soldiers contracted a violent catarrhal ophthalmia, which was attributed to the dust of the straw on which they had slept, and not to the moist and cold air of the place, which no doubt was the true cause, and which was so much the more likely to prove hurtful, as these men had been accustomed to close and comfortable quarters.\*

The catarrhal ophthalmia has been known to spread itself still more extensively, attacking a great proportion of the inhabitants of a town or district, so as to obtain the name of *epidemic ophthalmia*. In 1778, it attacked the whole neighbourhood about Newbury in Berkshire; and, in the same year, it prevailed in several of the English camps, where it was known by the name of the *ocular disease*. In 1806, an epidemic ophthalmia of this kind prevailed in Paris, and was in many cases attended by an affection of the mucous membrane of the air-passages; a complication which I have repeatedly observed in the sporadic cases of this country.

\* Manuale di Chirurgia, parte 2, p. 117.

The same disease prevailed in 1808, at Vicenza in Italy. It has been mentioned by some authors, that this disease is more common in summer and autumn. In this town and neighbourhood, it is common at all seasons.

If the catarrhal ophthalmia, or atmospheric puro-mucous conjunctivitis, be neglected, or treated only with general remedies, or with improper local ones, it will continue for many weeks, and become the cause of much febrile excitement and constitutional illness, as well as local distress. Amongst other bad effects of neglect, the conjunctiva, particularly of the upper eyelid, is apt to become sarcomatous and rough, and, by rubbing in this state against the cornea, brings on vascular nebula, and even dense white opacity, especially of the upper half of the cornea. The discharge from the conjunctiva is more apt, also, under neglect or improper treatment, to become puriform; and, being conveyed from the eyes of the patient to those of others, by actual contact, or by the use of towels and the like in common, will excite a conjunctivitis still more severe, more distinctly puriform, and more dangerous in its effects on the transparent parts of the eye. This, at least, is the conclusion at which I have arrived, from the observation of many instances, in which, as far as it was possible to come to the facts, this disease having arisen in one member of a family from atmospheric exposure, several others of the family have become affected without any such exposure, that could be ascertained; and while, in the first affected, the disease was comparatively moderate and scarcely puriform, in the latter the symptoms were more violent, and the discharge was thick, abundant, and opaque.

I think it probable, that the ophthalmia also which attacked the British and French armies in Egypt was an atmospheric puro-mucous conjunctivitis, but that it afterwards degenerated into a contagious, perhaps infectious, disease,—propagated, that is to say, by actual contact of the discharge, and perhaps by miasmata from the discharge floating through the air. Nor is this idea inconsistent with what is generally admitted regarding contagious and infectious diseases. If we admit such a thing as contagion or infection at all, we must also admit, I should apprehend, that diseases, originally excited by external influences, were propagated only, in the second and succeeding instances, by their contagious or infectious power.

I know of no experiments in which the discharge from an eye affected with puro-mucous conjunctivitis, arising from atmospheric influence, has been applied to a sound eye. Dr.

GUILLIÉ's experiments, indeed, may have been performed with matter of this description. He took the puriform mucus from the eyelids of some children affected with puro-mucous conjunctivitis, in the Hospital for Sick Children at Paris, and introduced it under the eyelids of four blind children belonging to the Institution for the Blind. These children were amaurotic, but the external surface of their eyes was healthy and entire. In all four a regular puro-mucous conjunctivitis was produced.\*

The following I regard as a striking, and indeed fearful, instance of catarrhal ophthalmia, or puro-mucous conjunctivitis, excited by atmospheric influence, spreading by contagion.

The French slave-ship *Rôdeur*, Captain B—, of two hundred tons burden, left *Hâvre* on the 24th January, 1819, for the coast of Africa, reached her destination on the 14th March, and cast anchor off Bonny, in the river Calabar. The crew, of twenty-two men, enjoyed good health the whole voyage, and during their stay at Bonny, till the 6th of April. No trace of ophthalmia had been observed among the inhabitants of the coast, and it was not till fifteen days after the *Rôdeur* had put to sea, and was nearly on the equator, that the first symptoms of this frightful disease were perceived.

It was observed that the negroes, who were 160 in number, and crowded together in the hold and between decks, had contracted a considerable redness of the eyes, which spread with rapidity from one to another. At first, however, the crew paid no great attention to this appearance, imagining that it was occasioned merely by want of fresh air in the hold, and by the scarcity of water; for they already limited the allowance of water to eight ounces a-day, and some time after they could allow only half a glass a-day. It was thought sufficient to make use of an eye-water made from an infusion of elder-flowers, and (following the advice of one Maignan, who acted as ship-surgeon,) to bring up the negroes in turns upon deck. This salutary measure, however, they were obliged to abandon; for the poor Africans, torn from their native home, and heart-wrung by the horrors of their situation, as well as by the recollections of their lost freedom, embracing each other, threw themselves into the sea.

The disease, which had spread amongst the negroes in a frightful and rapid manner, did not tarry to become contagious for all, and to threaten even the crew. The first man of the crew attacked was a sailor who slept under deck,

\* Bibliothèque Ophthalmologique, tome i. p. 81.

close to the grated partition which communicated with the hold. Next day, a lad was affected with the ophthalmia; and, in the course of the next three days, the captain, and almost all the crew, were seized.

In the morning, on awakening, the patients experienced a slight prickling and itching in the edges of the eyelids, which became red and swollen. Next day, the swelling of the eye-lids was increased, and attended with sharp pain; in order to lessen which, they applied to the eyes poultices of rice, as hot as they could bear them. On the third day of the disease, a discharge of yellowish matter took place, rather thin at first, but which afterwards became viscid and greenish; and was so abundant, that the patients had only to open their eyes every quarter of an hour, when the matter fell in drops. From the commencement of the disease, there were considerable intolerance of light and discharge of tears. When the rice failed, boiled vermicelli was used for poultices. On the fifth day, blisters were applied to the nape of the neck of some of the patients; but, as the cantharides were soon exhausted, they endeavoured to supply their place by the use of pediluvia containing mustard, and by exposing the swollen eyelids to the steam of hot water.

Far from diminishing under this treatment, the pain increased from day to day, as well as the number of those who lost their sight; so that the crew, besides fearing a revolt amongst the negroes, were struck with terror lest they should not be able to manage the vessel till they should reach the Carribbee Islands. One sailor only had escaped the contagion, and upon him their whole hopes depended. The *Rôdeur* had already fallen in with a Spanish ship, the *Leon*, whose whole crew were so affected with the same disease, that they could no longer manage their ship, but begged the aid of the *Rôdeur*, already almost as helpless as themselves. The seamen of the *Rôdeur*, however, could not abandon their own ship, on account of the negroes; nor had they room to receive the crew of the *Leon*. The difficulty of nursing so many patients in so narrow a space, and the want of fresh provisions and of medicines, made the survivors envious of those who died; a fate which seemed to be fast coming upon all, and the thought of which caused general consternation.

Some of the sailors made use of brandy, which they dropped between their eyelids, and from which they experienced some relief; which might have suggested to the surgeon the propriety of a local stimulating treatment.

On the twelfth day, the sailors who had experienced some relief came upon deck, to relieve the others. Some were thrice attacked with the disease.

The tumefaction of the eyelids having subsided, some phlyctenulæ were observed on the conjunctiva of the eyeball. These the surgeon had the imprudence to open; a step which proved hurtful in his own case, for he remained blind, without any possibility of recovering his sight.

On reaching Guadaloupe, on the 21st June, the crew was in a deplorable state; but, very soon after, from the use of fresh provisions, and by simple lotions of spring-water and lemon-juice, recommended by a negress, they became sensibly better. Three days after coming ashore, the only man who during the voyage had escaped the contagion, was in his turn seized with the same symptoms; the ophthalmia running its course as it had done on-board ship.

Of the negroes, thirty-nine remained blind, twelve lost each one eye, and fourteen had specks, more or less considerable, of the cornea.

Of the crew, twelve men lost their sight; one of these was the surgeon. Five lost each one eye; and amongst these was the captain. Four had considerable specks, and adhering of the iris to the cornea.\*

The atmospheric puro-mucous conjunctivitis, or catarrhal ophthalmia, yields readily, in general, to a very simple treatment, chiefly of a local and stimulating kind. I was first struck with the truth of this fact, in the successful treatment of this disease by Professor BEER, at Vienna, in 1817. I have since been greatly confirmed in the opinion that general remedies are inferior in importance to local ones, in this disease; that violent general remedies are absurd, and worse than useless; and that a local stimulant treatment may almost entirely be relied on, from the cases detailed in the excellent Report by Mr. MELIN, published in the London Medical and Physical Journal for September 1824, and from the results of my own practice, both in private and at the Eye Infirmary.

1. I very rarely find it necessary to take away blood in catarrhal ophthalmia, either from a vein or by leeches. When there is more than usual constitutional irritation, the taking away of from twelve to twenty ounces of blood from the arm, will no doubt prove useful; but this will rarely be necessary, if the disease has not been neglected for a number of days, or mistreated.

2. Scarification of the conjunctiva of the eyelids is necessary only in cases in which there is some degree of chemosis, and a distinctly puriform discharge. In such cases it proves a valuable means of cure. One or two deep incisions being

\* Bibliothèque Ophthalmologique, tome i. p. 74.

made along the inner surface of the upper or lower eyelid, a very considerable discharge of blood will immediately take place; and, if the eyelid be properly managed, blood will continue to flow for a considerable time. For this purpose, the eyelid ought neither to be held everted till the bleeding ceases, nor allowed to fall back into continued contact with the eyeball, in either of which cases it will soon cease; but the eyelid ought to be alternately everted and permitted to return to its natural position, by which means the divided vessels are re-filled, and thus a continual flow of blood is produced.

3. A brisk dose of calomel and jalap may be ordered, with occasional doses of neutral salts.

4. Determining to the skin is also useful; which may be done by the warm pediluvium at bed-time, and by small doses of Spiritus Mindereri, or of any other mild diaphoretic, in combination with diluent drinks.

5. In severe cases, a blister to the back of the neck will be found useful, or blisters behind the ears.

6. Even weak solutions of acetate of lead, or of sulphate of zinc, are prejudicial in this disease, aggravating the sensation as if sand were in the eye, increasing the redness, and leading to opacities and ulcers of the cornea.

7. On the contrary, the feeling of sand is uniformly relieved, and the inflammation abated, by the use of the solution of nitrate of silver. The solutions which I employ contains from two to four grains of the nitrate in one ounce of distilled water. A large drop is to be applied to the eye once a-day, by means of a camel-hair pencil. The instant that it touches the eye, the salt is decomposed, and the silver precipitated over the conjunctiva in the state of muriate. I have sometimes alarmed other practitioners, by proposing to drop upon the surface of an eye highly vascular, affected with a feeling as if broken pieces of glass were rolling under the eyelids, and evidently secreting purulent matter, a solution of lunar caustic; and I have been not a little amused and pleased at their surprise, when next day they have found all the symptoms much abated by the use of this application.

8. As a collyrium, I am in the habit of using a solution of one grain of corrosive sublimate in eight ounces of water. This being made milk-warm, is used thrice a-day for fomenting the eyelids, by means of a linen rag. In mild cases, a few drops are thus allowed to flow in upon the eye; but, in severe cases, in which the discharge is copious and puriform, this collyrium must be injected over the whole surface of the conjunctiva, and especially into the upper fold of that membrane, by means of a syringe; so that the whole morbid

secretion is removed, and the diseased membrane immediately touched by the solution.

9. At bed-time, about the size of a large pin-head of red precipitate ointment, melted on the end of the finger, is to be smeared along the edges of the eyelids. This ointment is prepared by levigating twelve grains of red precipitate till they become an orange-coloured impalpable powder, to which one ounce of fresh butter is to be added. I have occasionally seen this ointment prepared so carelessly, that crystalline scales of red precipitate were evident in it to the naked eye. The red precipitate ought to be carefully levigated till it lose the red colour, and become orange. Added to the quantity of unctuous substance above mentioned, it forms a golden-coloured ointment, which keeps for a great length of time, and is by far the best of all eye-salves.

10. The inside of the upper eyelid ought daily to be inspected. If there is any tendency to a rough and sarcomatous state of the conjunctiva, it ought to be touched with the solid sulphate of copper.

I have treated many cases of catarrhal ophthalmia according to this plan, and with uniform success. In no case, in which the above simple remedies were had recourse to previously to ulcer or opacity of the cornea, did any ulcer or opacity ever occur; nor did the symptoms ever fail speedily to subside. On the other hand, I have repeatedly had occasion to see cases of this disease, which had been much aggravated by trusting altogether to general treatment, and especially to bleeding; or by the use of acetate of lead, or sulphate of zinc, as local applications. I have been led to attribute to these salts the detachment of the conjunctival layer of the cornea, and at any rate the formation of an opaque cicatrix of the cornea; whereas, such superficial ulcerations, treated with the solution of nitrate of silver, have uniformly healed without opacity.

An analogous mode of treatment is to be followed in the different contagious species of puro-mucous conjunctivitis. They are all, however, much more severe and more dangerous diseases than the catarrhal. But any further remarks upon them, I must leave till some future opportunity. In the mean time, I shall add a few cases illustrating the progress of the cure of the catarrhal ophthalmia, and of the contagious ophthalmia to which it gives rise, under the plan of treatment which I have recommended. The contagious cases yield readily, in general, to the same means as the catarrhal; only it must be allowed that depletion and rest are more necessary.



## CASES.

CASE I.—June 23d, 1824.—Margaret Forsyth, age thirty-four. Scattered redness of both conjunctivæ, with itchiness and epiphora; eyelids glued in the morning. These symptoms have continued for eight days.

Pulv. Jalap. gr. xv.; Subm. Hydr. gr. vj. M. capiat q. p.—Mur. Hydr. gr. j.; Aquæ § vj. Solve pro collyrio, ter indies utendo.

25th.—Redness and other symptoms entirely gone.

CASE II.—November 1st, 1824.—Mary Bell, aged four and a half years. Puro-mucous conjunctivitis of eight days' standing; apparently from contagion. The discharge copious and opaque.

Gtt. Sol. Nitr. Argent.—Collyr. Mur. Hydrarg.

3d.—Puriform discharge diminished.

Ung. Præcip. Rub. marginibus palpebræ o. n.—Cont. Solut. et Collyrium.

5th.—Puriform discharge much less.

12th.—Still improves.

Continuantur Unguentum et Collyrium.

December 1st.—Dismissed cured.

CASE III.—November 10th, 1824.—Elizabeth Miller, age nine months. Catarrhal ophthalmia of six days' standing: left upper eyelid very much swelled.

Pulv. Jalapæ gr. vj.; Subm. Hydr. gr. ij. M. capiat q. p.—Gtt. Sol. Nitr. Argent.—Cataplasma super oculum sinistrum.

12th.—Swelling of the eyelid somewhat abated, and discharge diminished. Bowels confined.

Rep. Pulv. purgans.—Collyr. Mur. Hydr.

19th.—Symptoms much abated.

Cont. Collyrium.

December 1st.—Dismissed cured.

CASE IV.—December 27th, 1824.—Agnes Munro, age thirty-five. Catarrhal ophthalmia of the right eye, which is affected with considerable pain.

Gtt. Solut. Nitr. Argent.—Ung. Præcipit. Rub. o. n.—Collyr. Muriat. Hydrargyri.

29th.—Eye rather easier. Headache through the night.

Capiat Pulv. Ipecac. et Opii §j. h. a.

January 7th, 1825.—All but well. 10th.—Dismissed cured.

CASE V.—January 12th, 1825.—Walter Tennant, age thirty-two. Catarrhal ophthalmia of both eyes, chiefly affecting the right, but shifting from eye to eye for the last six months.

Gtt. Solut. Nitr. Argent.—Ung. Præcip. Rub. o. n.

14th.—Eyes less painful, but the puriform discharge more copious; right eye less red.

Collyrium Muriat. Hydrarg.

17th.—Much improved.

CASE VI.—May 20th, 1825.—Margaret Muir, age twenty-two months. Considerable inflammation of the left conjunctiva, with a discharge of puriform matter. Symptoms began a fortnight ago.

Gtt. Solut. Nitr. Argent.—Ung. Præcip. Rub. o. n.—Vesicat. pone aurem sinistram.

23d.—Puriform discharge considerably less.

Collyrium Muriat. Hydrarg.

30th.—Discharge entirely ceased.

Cont. Collyrium.

June 6th.—Dismissed cured.

CASE VII.—June 8th, 1825.—Grace Eccles, age two and a half years. Severe inflammation of the palpebral conjunctiva, with chemosis, and puriform discharge, attended with the eruption of measles.

Gtt. Solut. Nitr. Argent.—Collyr. Mur. Hydr.—Ung. Præcip. Rub. o. n.

10th.—Swelling of the eyelids fallen, but puriform discharge more abundant.

Injiciatur supra oculos Solutio Sulphat. Cupri.—Infusi Fol. Sennæ 3j.—Cont. Collyrium et Unguentum.

13th.—Much improved.

Repet. Solutio Nitr. Argent.—Cont. Collyrium.

15th.—Pulv. Rhei gr. viij.

July 1st.—Repet. Pulv. Rhei.

25th.—Dismissed cured.

CASE VIII.—July 15th, 1825.—Mary Ann McIntyre, age three. Conjunctivitis purulenta, of a fortnight's standing. Eyelids so much swollen that the cornea cannot be seen.

Scarif. facies interna palpebrarum.—Unguentum Præcip. Rub. o. n.—Vesicatoria pone aures.

18th.—Injiciatur Sol. Sulphat. Cupri supra oculos.—Collyr. Muriat. Hydrarg.

22d.—Discharge much diminished, and swelling of conjunctiva fallen.

CASE IX.—November 18th, 1825.—Elizabeth Sutherland, age fifty-one. Conjunctivitis catarrhalis of the left eye, of a fortnight's standing.

Subm. Hydrarg. gr. v.; Pulv. Jalapæ gr. xv. M. capiat q. p.—Collyrium Muriat. Hydrarg.

21st.—Scarif. facies interna palpebr. infer. sinist.—Ung. Præcip. Rubr. o. n.

23d.—Vesicatoria pone aurem sinistram.

30th.—Repet. scarificatio.

December 21st.—Eyes almost perfectly well.

Cont. Unguentum et Collyrium.

January 9th, 1826.—Dismissed cured.

CASE X.—December 28th, 1825.—Maria Duffie, age two and a half years. Lost the sight of the left eye when a month old. Conjunctivitis catarrhalis, of a month's standing, consequent to measles.

Gtt. Sol. Nitr. Argent.—Collyr. Muriat. Hydr.—Ung. Præcip. Rubr. o. n.

30th.—Symptoms much abated.

*Cont. medicamenta.*

January 11th, 1826.—All but well.—27th. Dismissed cured.

CASE XI.—December 28th, 1825.—Niel M'Vicar, age thirty-five. Conjunctivitis catarrhalis, since the end of October. Has been troubled with this complaint for six preceding winters.

Gtt. Solut. Nitrat. Argent.—Ung. Præcip. Rubr. o. n.

30th.—Symptoms abated.

Collyrium Muriat. Hydrargyri.

January 4th, 1826.—Much improved.

6th.—Eyes more inflamed. Conjunctiva of the lower eyelids somewhat granular.

Applicetur Sulphas Cupri.

22d.—All but well.—February 8th. Dismissed cured.

CASE XII.—December 28th, 1825.—Euphemia Wilson, age twenty-six.—Conjunctivitis catarrhalis of the right eye, of three weeks' standing, attended at first with considerable rheumatic pain of the head and cheek. Eyelids considerably swelled.

Scarif. facies interna palp. inf. dext.—Ung. Præcip. Rubr. o. n.

30th.—Gtt. Solut. Nitrat. Argent.—Collyrium Mur. Hydrarg.

January 2d, 1826.—Much improved.

30th.—Dismissed cured.\*

CASE XIII.—December 28th, 1825.—Charlotte Wilson, age one year. Conjunctivitis catarrhalis, of a fortnight's standing. Eyelids much swelled, and a profuse puriform discharge. Has probably received the disease from her mother, the subject of Case XII.

Injiciat. Solutio Sulphatis Cupri.—Ung. Præcip. Rubr. o. n.

30th.—Eyelids somewhat fallen, and puriform discharge rather less.

Collyrium muriat. hydrarg.

January 2d, 1826.—Considerably improved.

Gtt. Solut. Nitrat. Argent.—Cont. Collyrium et Unguentum.

4th.—Still a considerable discharge of puriform matter, with much swelling of the palpebral conjunctiva.

Injiciat. Solutio Sulphatis Cupri.

9th.—Swelling somewhat fallen.

Gtt. Solut. Nitrat. Argent.

16th.—Much improved.—30th. Dismissed cured.

CASE XIV.—January 4th, 1826.—Rebecca Chattie, age one year. Conjunctivitis puro-mucosa, of ten days' standing. Has probably received the disease from her brother.

Gtt. Solut. Nitrat. Argent.—Collyrium Muriat. Hydrarg.

6th.—Puriform discharge diminished.

\* This case, though one of catarrho-rheumatic ophthalmia, I introduce here in connexion with Case XIII.

11th.—Puriform discharge ceased.

13th.—Ung. Præcip. Rubr. o. n.

16th.—Dismissed cured.

CASE XV.—January 11th, 1826.—Hugh McGregor, age fifty-nine. Conjunctivitis catarrhalis, of a month's standing. Symptoms subsiding. Complaint began in the right eye, but now affects the left chiefly.

Gtt. Solut. Nitr. Argent.—Sulphat. Magnes.  $\frac{3}{4}$  jss.—Ung. Præc. Rub. o. n.

13th.—Collyrium Muriat. Hydrarg.—Pilulæ Aloet. i. mane et vespere.

25th.—Eyes all but well.

CASE XVI.—January 11th, 1826.—William Leck, age fifty-six. Conjunctivitis catarrhalis; frequently, during the last five or six years, Distichiasis.

Evulsio pseudo-ciliorum.—Gtt. Solut. Nitr. Argent.—Ung. Præcip. Rubr. o. n.

13th.—Eyes much relieved.

Collyrium Muriat. Hydrar.—Cont. Unguentum et Solutio.

February 1st.—Dismissed cured.

CASE XVII.—January 23d, 1826.—John Taylor, age thirty-six. Severe conjunctivitis puro-mucosa, affecting particularly the right eye, the conjunctiva of which is considerably chemosed, and the cornea hazy. A feeling of sand in the eyes, but no headache. Bowels open. A blister on the nape of the neck, and another behind the right ear, discharging.

Scarif. facies interna palp. inf. dext.—Gtt. Solut. Nitr. Argent.—Collyr. Muriat. Hydr.—Ung. Præcip. Rubr. o. n.—Pediluvium tepidum h. s.

25th.—Chemosis of the right eye considerably less; feeling of sand in the eyes, and all the other symptoms, abated.

Cont. remedia.

30th.—Chemosis gone; no discharge from the eyes.

Cont. Solutio, Collyrium, et Unguentum.

February 1st.—Eyes nearly well.—6th. Dismissed cured.

CASE XVIII.—January 27th, 1826.—John Newlands, age six. Conjunctivitis catarrhalis of both eyes, of twelve days' standing. A feeling of sand in the eyes.

Gtt. Solut. Nitr. Argent.—Ung. Præcip. Rub. o. n.—Collyr. Mur. Hydr.—Subm. Hydr. gr. iij.; Sacch. Alb. gr. vj. M. capiat q. p.

30th.—Symptoms much abated.

Cont. Solutio, Collyrium, et Unguentum.

February 10th.—Dismissed cured.

CASE XIX.—May 5th, 1826.—Elizabeth Balfour, age twenty-one. Conjunctivitis catarrhalis, of three days' standing, affecting the right eye. Has been subject to this complaint for a twelve-month past; but it has never affected the left eye.

Sulph. Magnes.  $\frac{3}{4}$  jss.—Gtt. Solut. Nitr. Argent.—Ung. Præc. Rub. o. n.

8th.—Symptoms considerably better.

Collyrium Muriat. Hydrarg.

## Mr. Travers' Case of Wound of the Carotid Artery. 331

June 5th.—Eye perfectly well. Dismissed cured.

CASE XX.—May 10th, 1826.—Agnes Donald, age three months. Conjunctivitis catarrhalis since the 7th, affecting both eyes.

Scarif. facies interna palpebr. infer.—Gtt. Solut. Nitrat. Argent.—Ung. Præcip. Rub. o. n.—Collyrium Muriat. Hydrarg.

12th.—Much improved.

Cont. medicamenta.

15th.—All but well.—22d. Dismissed cured.

*Spreull's-court, Glasgow; 22d June, 1826.*

### WOUND OF THE CAROTID ARTERY.

*Case of Wound of the external Carotid Artery, behind the angle of the Jaw, for which the common Carotid Artery was tied. Treated at St. THOMAS'S HOSPITAL, by Mr. TRAVERS. With Remarks.*

[WITH AN ENGRAVING.]

ON June 27th, 1826, — Black, a muscular man, of respectable appearance, æt. about thirty-five, was brought to St. Thomas's Hospital, at seven A.M., with a small penetrating wound near the angle of the jaw, on the right side. It appeared that, in consequence of his creating a disturbance the preceding night at Vauxhall, while in a state of intoxication, he was conveyed to the watch-house, where he conducted himself in so outrageous a manner as to render it necessary to confine him in the cell. A short time afterwards, a watchman, looking in by accident, saw the floor covered with blood, which was flowing rapidly from a wound in the neck, supposed to have been inflicted with a penknife. The hemorrhage was checked by pressure with the finger, till the assistance of a surgeon was procured, when a piece of sponge was introduced into the wound, a bandage applied, and the man was conveyed to the hospital. No blood escaped during the interval, but, when admitted, he was in a state verging on syncope; the face and lips pallid; the extremities cold; pulse scarcely perceptible; and he was evidently delirious.

On removing the bandage and sponge, the hemorrhage became terrific, but was restrained by firm pressure on the wound. The wound, three-quarters of an inch in length, on the right side of the neck, was found to extend from the front edge of the sternomastoid muscle, rather below the lobule of the ear, obliquely downwards and forwards to the angle of the jaw. The finger, introduced into the wound, readily passed as far as the second joint in the direction of the base of the skull.

Pressure was continued until Mr. Travers arrived, who dilated the wound, and, having removed a large coagulum, endeavoured to discover the bleeding orifice, but without success, on account of the depth of the wound, and the obscurity of the parts from the continual accumulation of blood. Finding that the hemorrhage was restrained by steady pressure on the common carotid artery,

Mr. Travers resolved on securing that vessel. For this purpose, while Mr. South commanded the flow of blood, by introducing his finger into the original wound, and compressing the artery against the angle of the jaw on its inner side, Mr. Travers made an oblique incision from the lower angle of the wound to within one inch of the clavicle, along the anterior edge of the sternomastoid muscle. Turning aside the omo-hyoideus, and proceeding to open the common sheath of the vessels, the internal jugular vein was drawn aside, and a single ligature passed around the artery from the inner to the outer side, by means of the aneurism-hook, carefully excluding the par vagum. Immediately after tightening the ligature, a very feeble pulsation was perceived above it, and also a slight oozing of arterial blood; which ceased, however, after a few seconds. The edges of the integument were approximated by three stitches and adhesive plaster, and the whole covered with simple dressing. The patient was then carried to bed; when it was found necessary to confine his hands and feet, as he was highly delirious. He was ordered to have a plentiful supply of toast and water, and nothing more.

Four P.M.—Slight oozing of blood, but not in greater quantity than from a common wound of similar extent. Pulse 110, quick, small, and hard; extremities warm; some pain in the head; copious mucous expectoration. Is quiet, and perfectly sensible; but answers inquiries in a morose manner, and refuses to give any information as to his name or residence.\*

28th, twelve M.—Slept three or four hours in the night. Countenance tranquil, and manner composed; pulse 100, hard, and sharp; skin natural; bowels have not yet been moved.

Capiat Ol. Ricini  $\frac{3}{4}$  ss. statim.—The bandages to be removed from his arms and legs.

29th.—Two copious evacuations yesterday evening. A quiet night, and the bowels have acted again this morning. There is nothing remarkable in his general appearance.

30th.—In the afternoon of yesterday, a sudden alteration took place: he became excited in the highest degree, and, watching his opportunity, rushed past the attendants, and, ascending the gallery of the operating theatre, jumped from thence into the area, alighting on his feet; he then descended some steps of the great staircase, in his way striking at a man who attempted to stop him; and, placing his hands upon the balusters, leaped from a height of twenty feet and a half, and alighted on the stone pavement, with no other injury than a slight bruise of the back and graze of the right elbow. He was taken up and replaced in bed, when his hands and feet were again confined. He afterwards complained of thirst, and of severe pain in his back and loins, and in the head. He passed the night quietly, though without sleep. This morning

\* It was shortly afterwards ascertained that he held the situation of chorus-master at Drury-lane Theatre, and was considered a person of some talent in his profession, but of a reserved and haughty disposition.

Mr. Travers' Case of Wound of the Carotid Artery. 333

he again became violent, and, having succeeded in extracting one arm from the jacket, tore off the dressings from the wound; but, fortunately, without doing mischief. The wound has a very healthy appearance, secreting pus in considerable quantity. No adhesion has taken place, probably in consequence of his restlessness, as he continually moves his head in every direction. Bowels have not been moved to-day. Thirst continues.

Evening.—Head cool, slightly painful; skin of the natural heat, and perspirable; pulse seventy, soft, and full.

An injection administered, by which the bowels were moved once.

July 2d.—He was tranquil yesterday, without headache; skin cool; pulse seventy-two. He has passed a tolerably quiet night, but without sleep. This morning he is again delirious. Pulse 100, strong, and hard; tongue white; bowels confined. In the absence of Mr. Travers, he was visited by Mr. GREEN, who ordered eight ounces of blood to be drawn from his temples by cupping, ten grains of calomel to be taken immediately, and a cold lotion to his head. He appeared to be much relieved by the cupping. It is, perhaps, worthy of notice, that much greater difficulty was found in obtaining blood from the right side of the head, than from the left. The bowels were acted upon once.

In the evening, he was quite composed; ate some bread and milk; and afterwards slept for several hours.

3d.—Is in a state of extreme languor, answering questions with difficulty, and much exertion. The countenance is sunk; lips and complexion pallid; disposition to coma; pulse seventy-two, full, and soft. A dessert-spoonful of port-wine was given, diluted with water: this had the effect of increasing the sharpness of the pulse, but produced no other alteration in the symptoms. The wound is healthy, granulating, and discharging copiously.

Inf. Cascar. ʒi.; Acid. Sulph. dil. m. xij.; Syr. Aurant. ʒj. M. sextis horis sumend.—Arrow-root.—Vini rubri ʒij. quotidie.

5th.—There is a decided improvement since the last report, both in the general symptoms and in the countenance. Wound granulating, discharge copious; bowels confined.

Ol. Ricini ʒss. statim et p. r. n. repetend.; adde sing. Haust. Tr. Cinch. ʒj.

9th.—The ligature came away this morning. Though generally quiet, there is again a wildness about his countenance and manner, which indicates the necessity of continuing the confinement of his limbs. The wound is filling by granulation; the discharge copious, but healthy. Has some appetite, and takes broth, bread and milk, &c. with relish.

12th.—Again had a paroxysm of delirium, in which he tore off the dressings, producing a slight discharge of blood from the wound. His appetite is good, and he is free from pain. Refuses to take the tonic, which is therefore discontinued. Bowels still confined.

Small doses of the Ol. Ricini every other day. Meat once daily.

15th.—Had a cold shivering fit yesterday afternoon, which lasted

half an hour, and which he attributed to a current of air from the window by his bedside, which had been open rather later than usual the evening before. The granulations are pale and languid; the discharge copious.

Dec. Cinchon. 3x.; Acid. Sulph. dil. m. x.; Tr. Cinchon. 3j. M. ter die sumend.

19th.—Has continued to improve progressively since last report. A solution of Sulphate of Copper to be applied to the wound daily before dressing.

27th.—Tongue clean; pulse ninety, small, and regular; appetite good; bowels open; takes Mist. Sennæ Comp. p. r. n.; sleeps well; head quite free from pain; complains of soreness in the feet and legs when he walks, and when the legs are hanging down. Wound healing; discharge still copious.

Frictions with Linim. Saponis comp. c. Opio, and rollers to the feet and legs.

August 8th.—Since last report he has been daily walking about the ward. Yesterday afternoon he had another slight shivering fit. He now complains of pain in the head, and in the right side of the neck, which is swollen and tender. The incision is healed, except about a quarter of an inch at the lower part of the wound, from which the discharge continues copious. Tongue white; appetite bad; considerable thirst; bowels tolerably regular.

9th.—R. Mist. Ammon. Acet. c. Liq. Antim. Tart. ter die sum.—Mist. Sennæ Comp. alt. aur.—Catap. Lini.

12th.—The opening in the wound is now deep and nearly circular; discharging copiously. The swelling and pain have abated; appetite returning.

18th.—At twelve last night, hemorrhage, to the amount of about eight ounces, took place in the poultice: the patient, by making pressure with his own finger easily prevented the further loss of blood. The dresser was called, who applied a compress and bandage.

At half-past four A.M. a second hemorrhage came on, and about the same quantity was lost. Compress again applied, with the effect of arresting the bleeding. For the last two or three days, he has had pain in the right side of the neck and face, and his rest has been disturbed, which he attributed to the irritation of a decayed stump in the upper jaw, which he himself extracted. Fancies that he has taken cold, and desires to have additional clothing.

19th.—Pulse eighty-eight, feeble, but sharp; no pain; skin cool and moist; furred tongue; bowels open; sleeps indifferently well. Countenance sunk and pallid, with a marked expression of anxiety.

20th.—Bleeding recurred four times in the course of the day, but, the hemorrhage being easily checked by pressure with the finger, very little blood was lost.

21st.—Wound bled three times. Head rather hot.

Apply cold lotion.

22d.—It is now found necessary to keep up constant pressure



*Mr. Travers' Case of Wound of the Carotid Artery.* 335

with the finger, as the hemorrhage recurs on the instant of its removal. One or two ounces of blood may have been lost in the course of the day. He lies on his back, with the shoulders considerably elevated, as a more recumbent posture induces a painful affection of the head. A very peculiar dazzling brightness of the eye is observable.

23d.—Has lost, perhaps, three or four ounces of blood since yesterday, which has escaped when the thumb has been removed, as in changing assistants. Pulse 100, small, but not more feeble than for several days past. The wound is now considerably enlarged.

Two P.M.—It was resolved, in consultation, to endeavour to find the bleeding orifice, and to tie it. In pursuance of this resolution, he was conveyed to the theatre. On removing the coagulum, which was already half extruded, at least two pounds of florid blood escaped, in a full, uninterrupted stream, in less than two minutes. By thrusting a sponge into the upper part of the wound, and making firm pressure upon it, the hemorrhage was repressed. The countenance instantly assumed a ghastly hue; respiration became difficult and laborious; the eyes were elevated, and symptoms of approaching dissolution made their appearance. Wine and brandy were repeatedly administered, without effect, and at half-past three P.M. he expired.

*Sectio cadaveris, nineteen hours after death.*—On extending the wound in the direction of the cicatrised incision, the cavity of an abscess was found, to which the coagulum removed yesterday accurately corresponded. It was about the size of a pullet's egg. At the bottom of this cavity was seen a portion of the entire cylinder of the carotid artery, about one-third of an inch in length, insulated, both above and below, by an intervening space of about one-third of an inch. The orifice of the lower portion of the carotid was circular, but its calibre diminished; and, on slitting it open, it was found that a plug of adhesive matter filled the vessel, and perfectly secured it from hemorrhage. Nearer the heart was a long and firm coagulum of blood. The orifice of the upper part of the trunk was irregular from ulceration, having a tongue-like prolongation, formed of the posterior third of its parietes. This upper portion of the vessel, to which the coagulum was exactly moulded, was patulous; and from this the blood had flowed in the fatal hemorrhage, by reflux through the opposite carotid and vertebrals. On examining the artery at the site of the original wound, an aneurismal pouch, as large as a sparrow's egg, was found opposite the origin of the facial artery. In the viscera, the only circumstance worthy of notice was an enlargement of the pineal gland, to about double its ordinary size.

REMARKS.—This case is valuable, as it establishes the important fact that a ligature of the common carotid trunk is available to arrest hemorrhage from a wound of the external carotid artery, so situated as not to admit of being included

between two ligatures. The secondary hemorrhage, which proved fatal *at the expiration of ten weeks* from the injury, does not in the remotest degree impugn the accuracy of this conclusion. The ulceration of the entire circle of the artery, in common with the surrounding parts, which induced the fatal hemorrhage, was plainly owing to the formation of an extensive abscess; a contingency which probably would not in another instance occur, or the occasion of which (more correctly speaking) might be guarded against: viz. the disturbance of parts inseparable from a long and fruitless search after the wound of the artery. Fruitless, even should the spot be ascertained, if its situation precludes the application of a ligature above the wound; and, if it should not be so situated, it amounts to a question whether the employment of a second ligature offers a paramount advantage to the risk incurred in the elaborate dissection necessary to detect and expose the wound of a deep artery, in such most unfavourable circumstances.

In the case above detailed, had the operation of tying the carotid trunk been practised distinct and at a distance from the original wound, and had this remained undisturbed, it is extremely probable that the coagulum would have been gradually absorbed; that suppuration of the cavity would never have taken place, or have been of very inconsiderable extent; and that the case would have terminated, like that of aneurism, with the separation of the ligature. This is a reflection which, candid persons will be ready to admit, was neither likely to have suggested itself to this extent in the first instance, nor perhaps, if it had, would it have formed, without a precedent, a vindicable ground of procedure. Such after-reflections, however, suggested by experience, constitute the basis of scientific improvement, and therefore ought to be candidly received. If there is reason to believe that the situation of the wound in an artery is such as to preclude the possibility of including it between two ligatures,—and if there is also reason to believe that the successful application of one ligature depends upon the non-disturbance of parts, then it is clear that the wound should be treated as the aneurismal sac, at a distance, by simply taking off the direct impulse of the current of blood, leaving the wound, as the aneurism, undisturbed.

Another view of this question appears to lend confirmation to the practice proposed. The puncture of an artery is difficult to be discovered,—much more difficult than its division, notwithstanding the retraction in the latter case; unless, indeed, time sufficient has elapsed since the division,

to have given the wound a coating of adhesive matter, when the detection of the arterial mouth is often extremely embarrassing.

In the case of a truncated artery on the surface of a stump, the stream of blood is a direction to the mouth of the vessel; but the mode in which blood escapes from a lateral wound or puncture of an artery, is such as to give a very indirect, or even erroneous clue, to its precise situation. A somewhat extended and clean exposure of the vessel by dissection is necessary to demonstrate a puncture or incision, when we are aided by the quietude of the parts in death, and no longer incommoded by the gush of blood. But the circumstances attending a penetrating wound tend as much as possible to obscure it. The resistance opposed by the sheath, the cellular membrane, the muscles, and fascia, is exhibited in the formation of a cavity, loaded with coagula, between the wound of the artery and that of the integument, from which the artery is entirely shut off, except at the point from which the blood enters it; and even here the communication is oblique or valvular, owing in part to the direction and force of the current, but especially to the infiltration of the sheath and connecting membrane, and the altered relative position of the two (outer and inner) wounds. Hence the difference observed in the mode of escape of blood from the wound of an exposed artery, and of one which is covered and concealed from view. In the former, the blood, meeting no obstacle, continues to be delivered, as at first, in a distinct saltatory jet: in the latter, though it flows *per saltē* at the instant of the wound, the jet almost immediately ceases, and, if the hemorrhage continues or recurs, the blood accumulating in the wound is discharged at intervals; proving at the same time the existence and the partial efficiency of the natural checks above described; and this happens, however freely the external wound is dilated. When this is done, and the coagula cleared away, the bleeding seems to arise, not from a point, but from the whole bed of the wound. It is, in fact, the overflowing of a chamber or reservoir, which is supplied, as it has been formed, by the interrupted delivery of the blood from the hidden orifice of the vessel.

In wounds not admitting of ocular demonstration, and the application of including ligatures, as in the case above detailed, a ligature on the side next the heart might, *a priori*, be supposed an insufficient security against hemorrhage by reflux of the circulation; in the arteries of the head and extremities especially. It was, however, found sufficient to command the hemorrhage, in this and another case of wounded carotid; and it has proved sufficient in punctured wounds of the brachial and femoral arteries. The Baron

DUPUYTREN recently mentioned to the writer of these remarks a case, in which the popliteal was successfully tied for a wound of the posterior tibial artery. Wounds of the arterial trunks of the arms and legs are generally supposed to require a ligature to be placed on either side of them. This, as regards primary hemorrhage, must depend on the size of the wound. If a puncture of the carotid, large enough to occasion a hemorrhage which had nearly proved fatal, (and which, left to itself, undoubtedly would have been fatal in a very few hours,) requires only one ligature for its complete restraint, *a fortiori* a puncture of either artery of the arm or leg might be safely so treated. The division of the carotid is fatal on the spot, so that no parallel case can be put; but a semi-division, or a complete division, of the posterior tibial, or ulnar artery, cannot be left to a single ligature with safety. But there is a sufficiently cogent reason why a second ligature should be employed, even though the primary bleeding be commanded by one, where a wounded artery is superficially seated, and consequently the danger of inducing abscess and secondary hemorrhage, by separation of deep-seated parts, does not exist. This is the prevention of what may be called traumatic aneurism; for it is shown in the foregoing case how soon, after it had failed to maintain the hemorrhage, a sufficient impulse was given by the reflux column of blood to convert the newly-cicatrised wound into an aneurism; though it is doubtful if an aneurism so formed would increase or become formidable, it were surely wise, when practicable, to anticipate its production.

In all cases, the danger of secondary hemorrhage from ulceration is in proportion to the disturbance of parts: when, therefore, primary hemorrhage from a deep-seated artery is commanded by compression of the trunk nearer to the heart, it will be a safer and a better practice to apply a ligature distinctly, as in aneurism, leaving the wound to itself. When, on the contrary, the vessel is superficially seated, it will be better to secure the wound between two ligatures, even though it should not be necessary to do so for the command of the primary hemorrhage.

The writer remembers the failure of an attempt to cure an aneurism of the anterior tibial artery, by a ligature above the sac: the pulsation, at first arrested, or more probably unperceived, returned vigorously in a day or two, and the operator was compelled to apply a second ligature below the sac. This is not at variance with the fact mentioned by M. Dupuytren, because the reduced force of the circulation would allow of the adhesive process in the case of a recent wound, provided the parts were not disturbed, so as to provoke suppuration.

The proximity of the wound or aneurism of the carotid, and of the arteries of the arms and legs, to a natural boundary of the circulation, and the peculiar mode of communication, by cross branches, subsisting between the carotids and vertebrals, and the ulnar and radial and two tibial arteries, makes the employment of a second ligature an analogous, if not parallel, case—circumstances as regards the extent of the wound, &c. being, as far as the case admits, the same. And the same general principle seems applicable to the treatment of wounds and aneurisms, both of which are formidable in proportion to the vigour of the circulation through the sac or wounded vessel respectively. It is not necessary to the cure of aneurism, nor the arrest of hemorrhage, that the blood should be excluded, if the impetus of the circulation be so taken off the sac or wound, that the pulsation in the one case, and the hemorrhage in the other, cease, from the rapid conversion of the fluid into a solid. But it would be extraordinary if the digital portion of an artery of the limbs, as the ulnar or tibial, required a ligature for either wound or aneurism, when it is found unnecessary to secure the cranial portion of the carotid, for a wound or aneurism of that artery. That the regurgitation should be sufficiently profuse and powerful in the completely open state of the carotid artery, when divided by ulceration, to extinguish life at once, cannot be surprising, when we consider the diameter of that vessel, its origin, and the direct channels of communication between the principal branches of the internal carotids and vertebrals (anterior et posterior cerebri,) forming the circulus arteriosus at the basis of the brain. The most abundant anastomotic communication elsewhere is not to be compared with this.

The compound formation of the palmar and plantar arches by direct communication, is, in like manner, a sufficient explanation of the recurrent force of the circulation, and the necessity for a ligature on the lower portion of the vessel. If the communication were exclusively and distinctly anastomotic, it would probably be so much feebler as to render this unnecessary.

An instrument, resembling in its outline a button-hook, used for conveying the ligature around the artery, on this and several other occasions at St. Thomas's Hospital, having an oblong eye at its extremity, which is flattened and pointed, will be found greatly more convenient than the common aneurism needle. Its short curve fits it to embrace the cylinder of the vessel, as its thin point separates the sheath in its passage. It was designed and first used by Mr. GREEN:

*Explanation of the Plate.*—A, the lower orifice of the carotid artery; B, the detached portion; C, the upper orifice; D, the aneurismal bag on the site of the wound; E, the cavity from which the coagulum was removed.

## ON THE USE OF THE BILE.

*Experiments with a view of ascertaining the Effect of Tying the Ductus Communis Choledochus.* By HERBERT MAYO, Esq. &c.

It must be well known to your readers, that Mr. BRODIE found the production of chyle prevented when the ductus communis choledochus was tied. The experiment was performed upon young cats: on its repetition, the very remarkable circumstance was noticed, that, if the animal survived a sufficient length of time, the duct was restored by a process similar to that which Mr. TRAVERS had observed upon tying a ligature round a portion of intestine. The attention evidently bestowed upon this subject by Mr. Brodie, which its importance well deserves, appeared to preclude the possibility of error in his researches. It was not, therefore, without considerable surprise that I read a note in the last edition of M. MAGENDIE's original and excellent Treatise on Physiology, of a part of which the following is a translation:

"I have repeated the experiment of tying the ductus communis choledochus in adult animals: the greater number died of the consequences of the wound of the abdomen, and the violence attending the ligature of the duct. But in two cases, in which the animals survived several days, I was enabled to satisfy myself that white chyle had been formed, and fæcal matter produced. The fæces had not the usual colour; which is not surprising, as they contained no bile. The animals had not become jaundiced."

The preceding statement seemed to throw the question, which Mr. Brodie's experiments had for a time decided, into its former uncertainty; and, in order to advance a step nearer truth, nothing appeared left but to go over the same ground a third time. Accordingly, with the assistance of my friend Mr. CÉSAR HAWKINS, I repeated the experiment, and met with the following results:

The ductus communis choledochus was tied in three cats, each about four months old, which had fasted for twenty-four hours previously. They each took food after the operation, which they threw up; but they afterwards again took food, consisting of milk and raw or boiled meat, and continued to eat occasionally with a natural appetite.

One of these animals was killed between five and six hours after the duct had been tied. The stomach contained a full meal of meat, consisting in part of morsels, which were softened by the action of the gastric juice, but had undergone no further alteration; in part of a pulpy mass of a reddish-grey colour, in part of a brownish-grey viscid liquid, in which

innumerable small globules of oil floated. The small intestines were perfectly empty.

The second died within fifty hours after the experiment. The stomach contained a small quantity of half-digested food; the small intestines contained scarcely a trace of a greyish semifluid substance, which here and there admitted of being scraped from the villous surface.

The third was killed three days after the operation. The stomach contained half-digested food; the small intestines contained a quantity of a greyish viscid liquid, very like the liquid contents of the stomach. The great intestines, in this and the preceding instance, were distended with a greyish, tenacious, and highly offensive semifluid matter.

An adult dog, in which the duct had been tied, was found dead on the second morning of the experiment. The mucous membrane of the stomach and bowels was inflamed; the stomach contained water only; the small intestines held a quantity of yellowish ropy liquid.

Finally, the duct was tied in two young dogs, which had fasted for twenty-four hours. One died, the second was killed, about forty-eight hours after the operation. Both had eaten boiled flesh, and had taken milk. In the first, the stomach contained half-digested food; and the small intestines contained a quantity of grey liquid, separate from a viscid ropy material, that adhered to the villous surface. In the second, the stomach contained a frothy mucus only; but the small intestine was moderately distended with a quantity of yellowish liquid.

The animals which were killed were immediately examined: those which died were examined from four to five hours afterwards. In each case the duct was found to have been accurately secured: the gall-bladder and gall-ducts were distended with bile; and there was no trace whatever of chyle in the lacteal vessels.

The general coincidence of these results with those obtained by Mr. Brodie, leads me to suppose that M. Magendie may possibly have overlooked some source of error in his experiments. In one of the experiments which I have narrated, the animal, when pithed, bled profusely; and, when the mesentery was first examined, the empty arteries upon it presented exactly the appearance of lacteals. Possibly M. Magendie was deceived by a similar circumstance; or it might have happened that the duct had been restored in the two instances he mentions, and that the bile had thus again found its way into the duodenum.

In making these remarks, I am endeavouring only to

reconcile conflicting accounts, where the good faith of the narrators is beyond all doubt, and where the scrupulous accuracy of both parties is so well acknowledged as to render any additional testimony futile, except in the present curious instance, where their observations happen to be at variance.

#### CHOREA.

*Case of Chorea, cured by the external Application of Tartar Emetic, after Purging and Tonics had failed.* By *ÆNEAS M'ANDREW, M.D.* Physician to the SOUTH LONDON DISPENSARY.

MARIA CHARLES, aged nine, was admitted a patient at the South London Dispensary on the 9th March, 1826. Her complaints began in January, at which time she was observed to be labouring under slight convulsive motions of both sides of the body. These were always increased by mental agitation, and have never left her since that time. She also complained of occasional pain in the head, and was affected with a diarrhoea, which lasted nearly three weeks. At school, the convulsive movements were attributed to a bad habit, and she was punished accordingly. Her brother has for some years been subject to epileptic fits, and his intellect is now much weakened. Her mother labours under constant trembling of the head.

When examined to-day, the motions were found to be confined more particularly to the extremities of the right side; she walks unsteadily, but can guide a glass to her mouth easily enough. Pulse weak; appetite good; bowels rather costive.

R. Hydrar. Submuriat. gr. iij.; Pulv. Jalapæ gr. xv. M. fiat pulvis omni nocte sumendus.—She afterwards took an increased dose: R. Hydr. Subm. gr. v.; Pulv. Jalapæ ℥j. M.

April 10th.—She has taken the powders regularly up to this period, and has had about three alvine evacuations daily: they at first were dark-coloured and fetid, but are now quite natural in their appearance. Large doses of medicine were required to open her bowels. Leeches were at one time applied to relieve the pain of the head. She became much thinner; and the convulsions, although at times apparently slighter, were, upon the whole, rather more severe than at first.

Sulphate of Zinc, Extract of Gentian, and the shower-bath, were latterly conjoined with the purgatives; but the two first were stopped, in consequence of producing vomiting.

April 17th.—Has taken, since the 13th, some Castor-oil, to keep her bowels regularly open; and a draught, composed of Sulphuric Ether, Tincture of Valerian, and Tincture of Opium, was ordered to be taken every night. Is now decidedly worse; the convulsive movements are incessant; they affect both sides of the body, and are said to be worse during sleep. She can scarcely stand or walk, and it is now impossible for her to carry a glass to her mouth.



When desired to put out her tongue, she makes a great many awkward attempts, but cannot succeed. Speech is much affected. The motions were formerly diminished on the approach of a stranger, they are now increased by that circumstance. Bowels open once a-day; appetite good.

The draught was immediately suspended, and the purging powder repeated.

20th.—Continues much the same.

The head was ordered to be shaved, and a little of the Tartar-emetic Ointment to be rubbed on the scalp night and morning.—The powders to be continued.

24th.—The ointment has produced a copious eruption of pustules over the upper part of the head, and a few at the lower part: they only appeared yesterday. Convulsive motions of the right side considerably diminished, but on the left side they are still violent. She now articulates distinctly, and can put out her tongue, but quickly draws it in again. Being desired to carry a glass of water to her mouth, she made the attempt, but could not succeed: her face got flushed, she seemed irritated, and the motions became very strong. Bowels open about three times a-day; appetite keen.

The same plan to be continued.

27th.—Continues to improve. Convulsive motions less severe, and at times almost gone, or confined to the lower limbs. She articulates distinctly, but cannot advance even a few steps without being supported. Motions still persist during the night-time; bowels freely opened; appetite keen. The whole of the head covered with pustules.

The ointment to be rubbed into the upper part of the spine.

May 1st.—Her mother states that for two days she was unable to articulate. Motions less. When told to remain still, she can do so for a short time. She attempted to walk, but tottered very much, and stumbled. Articulation distinct. Eruption beginning to appear on the back part of the neck.—Continue.

11th.—Continued to improve gradually for two days, and then remained stationary till the 8th, since which time she has been very much better. She can now walk without any assistance, although her steps are still irregular. Motions are very slight, and cease entirely when she is desired to remain quiet. She sleeps well, and almost without any irregular motion. Eruption has been maintained on the head and upper part of the spine. There appeared yesterday a swelling on the forehead, extending from the hairy scalp to the root of the nose: it is painful, but colourless, nor is the pain increased on pressure. She feels thirsty; appetite good; pulse natural. Has gained flesh.

The friction to be stopped, and a lotion of the Subacetate of Lead to be applied to the swelling. The powders to be continued.

13th.—The swelling yesterday left the forehead, and passed to the eyelids and roots of the nose, where it now remains, but considerably diminished in size. She walked about a mile and a half to come to the Dispensary. For about an hour after rising from bed,

she is affected with the movements, which are not severe, and leave her almost entirely during the rest of the day. Eruption drying.

Continue.

29th.—Has continued to improve steadily. Motions are now very trifling, and confined to the fingers of the left hand, for a short time in the morning. She can work with her needle. The eruption is nearly healed, and some weakness, which remained in the left side of the body, is almost gone. Appetite good; bowels open, a dose of calomel and jalap being given occasionally. She took six powders with her, to be administered as her bowels might require it, and was dismissed from the Institution. I have seen her since, and assured myself that the recovery is complete.

The foregoing case was certainly not very severe when it first came under treatment, although the existence of convulsive affections in other members of the family indicated a predisposition to affections of that class, which rendered the prognosis very unfavourable. The previous diarrhoea, and the actual confined state of the bowels, naturally led to the opinion that some irritation of the intestinal canal was the exciting cause of the complaint; and accordingly the treatment recommended by Dr. HAMILTON was adopted to its full extent, and persevered in for more than a month. Large doses of purgative medicine were required to open the bowels freely; and the fæces, at first of an unhealthy aspect, gradually assumed their natural colour. This, however, was the only symptom of amendment; the convulsive motions were rather increased than diminished, and the emaciation advanced rapidly. Tonics having been rejected by the stomach, I resolved to try if a full dose of the more powerful antispasmodics would have any effect in arresting the motions. This, however, only did harm: she became much worse in consequence; every symptom was aggravated; and, although her appetite remained good, the consequences that might result from the convulsions persisting in her debilitated state, became the subject of serious apprehension. I was, therefore, induced to try the friction of the scalp by the tartar-emetic ointment; a plan of treatment, for which we are indebted to Mr. HUNTER, of Glasgow, who has published a very decided instance of success arising from it in the *Edinburgh Medical and Surgical Journal*, for April 1825. I believe that the case of Maria Charles is another example of its efficacy: a decided improvement followed the eruption, and, under its influence, the motions of the body were at last brought back to their natural state. It is, however, a severe remedy, and in this case produced a swelling that might have terminated in erysipelas; and I apprehend that it should not

he had recourse to until purging has been fairly tried; which, when succeeded by tonics, is, in the majority of cases, sufficient to effect a cure.

Besides, the adoption of this plan does not depend upon empiricism merely: we can, in some degree, explain the manner in which it proves beneficial. We know that a morbid accumulation of fæces is the most common cause of the complaint, and that the most important indication to be fulfilled is its removal. The explanation of the good effects that have sometimes resulted from other plans, rests upon hypothesis merely: no other exciting cause has been sufficiently established; and we have not as yet derived any assistance from pathological anatomy. We are, therefore, deprived of a basis on which to found our treatment. We recommend it because it did good before; but, being ignorant of the particular case to which it is applicable, we cannot be surprised if it fails, and cannot feel perfect satisfaction if it succeeds.\*

Great Surrey-street; July 1826.

#### TRANSPPOSITION OF THE VISCERA.

*Case of Transposition of the Viscera of the Thorax and Abdomen, in a Patient treated at ST. GEORGE'S HOSPITAL, by MR. ROSE.*

MARY RANDALL, forty years of age, was admitted into St. George's Hospital, under the care of Mr. Rose, on the 10th of August, 1825, with disease of her right ankle. She had been ill two years, and during the greater part of that time she had been confined to bed. Several ulcerated openings on her instep, and round her ankle; led down to diseased bone: she felt intense pain on the slightest attempt to move her foot; was much emaciated, and beginning to suffer from hectic fever.

On the 19th of August, Mr. Rose amputated the limb below the knee. On examination, the disease was found to have begun in ulceration of the cartilages between the astragalus and os calcis. The stump healed favourably; but she continued in the hospital on account of a large ulcer, the consequence of a slough of the integuments over the sacrum. When it was nearly well, she was attacked with disease of the lungs; of which she died on the 29th of January, 1826.

The body was examined on the following day, and the lungs on both sides were found to be filled with tubercles, many of which had gone into suppuration.

This woman afforded an instance of a complete transposition of the viscera, both of the thorax and abdomen.

The lungs of the right side were divided into two lobes; those of the left into three. The apex of the heart was turned towards the right. The aorta was given off by the right ventricle, which was

No. 332.—New Series, No. 4.

2 Y

\* Mr. Rose observed that in the case of the lungs, the great bronchus in each side was given off by the right ventricle, the pulmonary artery by the left, and the pulmonary vein by the right. The aorta was given off by the right ventricle, and the pulmonary artery by the left.

the most muscular; and the pulmonary artery by the left. The distribution of the veins corresponded; the left auricle receiving the blood from the two venæ cavæ, and the right from the pulmonary veins. The arch of the aorta was turned from the left to the right, and the first great branch given off by it was the common trunk of the carotid and subclavian of the left; the next, the carotid of the right; and the third, the subclavian of the right. The aorta descended to the right side of the spine; and, in the abdomen, had the cava ascendens placed on its left.

The viscera of the abdomen were transposed in a similar manner. The liver was situated in the left hypochondriac region, with its small lobe to the right, and its great lobe to the left side. The stomach and spleen were on the right. The mesentery began on the right side. The ilium terminated in the cæcum on the left side; the transverse arch of the colon passed from the left to the right; and the sigmoid flexure of the colon descended on the right to its termination in the rectum.

Many instances of this *lusus naturæ* are now upon record. One was met with in the dissecting-room of Windmill-street, in 1788; of which an accurate description is given by the late Dr. BAILLIE, in the Transactions of the Royal Society. Another is mentioned by M. LARREY,\* in his Memoirs of Military Surgery.

In examining the case which we have above detailed, Mr. Rose stated that a transposition of the viscera had occurred in a soldier of the Grenadier Guards, whose body was examined at Chatham, by Mr. BACOT; and that he himself had met with another instance in a soldier of the Coldstream Guards, who died at St. Jean de Luz, in the south of France, in 1814; which was seen by Sir JAMES M'GRIGOR, and by many of the military surgeons. In the latter case, there was no transverse arch of the colon. The cæcum was placed under the left kidney, and, as well as the ascending portion of the colon, was attached, by a loose reflection of peritoneum, to the psoas magnus of the left side. The colon having ascended on the left, and reached the left hypochondrium under the great lobe of the liver which occupied that region, was reflected outwards, and descended on the same side, instead of crossing the epigastric region. The sigmoid flexure of the colon was thus placed on its proper side, (the left,) immediately contiguous to the ascending portion, and on its outer edge. The transposition of the viscera of the thorax, and of all the other viscera of the abdomen, was complete, and precisely similar to that in the case of Randall.

\* Vide Mémoires de Chirurgie Militaire, par M. LARREY, tome i. fol. 7.

## HYDROPHOBIA.

*Case of Hydrophobia.* By DAVID KING, Esq. (Communicated by Mr. SHAW.)

JULY 22d, 1826.—William Savage, aged sixteen years, of a strong muscular frame and robust constitution, on Monday last (17th,) felt rather dull, and complained of a buzzing noise in his right ear. On the following day this sensation distressed him very much, and some warm milk and oil were put into it, but without affording any relief. However, he was able to walk about during the day, and, after supping on light pudding, he went to bed, without much apparent indisposition; but his mother remarked that he declined drinking any thing. Early in the morning of the 19th, his mother was alarmed by a peculiar noise he made in his throat, as if endeavouring to bring something up. He seemed terrified, and, as soon as he could speak, begged that some of the neighbours might be sent for, as he felt as if he should be suffocated.

About an hour afterwards, he was seen by my assistant, Mr. MIDDLETON. As he was immediately struck with the similarity of the actions and appearance of the patient to the cases of hydrophobia he had seen at the hospitals, he asked the mother if her son had ever been bitten by a dog? The patient, having overheard the conversation, answered immediately, that he had been bit by a strange dog a few weeks ago, and that his brother could tell all about it.

His brother informed us that, on the 10th June last, whilst they were at work, they observed a dog lying in the field, which had "foam" about its mouth; and that his brother, after having pursued it for a few minutes, was slightly bit in the right thumb, whilst endeavouring to get hold of its collar. The part bitten bled a little. The dog was instantly killed, the lad went and bathed in a pond, and no more attention was paid to the circumstance.

I was now requested to visit the patient, when (at seven o'clock) I found him labouring under some difficulty of speech; he sighed frequently, and occasionally sobbed. He was excessively irritable, but his voice was clear and distinct; and he said he felt no pain, but that the buzzing in his right ear continued to distress him very much. He was terrified by the sight of fluids, when brought within a yard or two of him, and was thrown into convulsive spasms even by blowing on his face. He could bear to see fluids poured from one vessel into another, when held at a considerable distance from him; and could look into a mirror, if held at some distance and steadily, but, if moved backwards and forwards, he was much agitated. His countenance was slightly flushed, but there was no livid colour of the lips nor redness of the eyes; his pulse was from ninety-six to one hundred, and rather weak; and his breathing was hurried. He had urgent thirst, and his tongue, which he put out with the utmost facility, was rather white, but moist. He had not the slightest degree of

cough, but used occasionally great exertions in attempting to bring up something, which he said made him feel as if he was choking. His bowels had been regularly open every day, but he complained of great weight at the pit of his stomach.

His hand was now washed, and, upon examination, a small cicatrix was observed on the second joint of the thumb of his right hand, which he and his brother pointed out as the part that had been bitten; but there was no redness nor pain about it; nor was there any appearance of irritation on the hand or arm during the whole of the patient's illness.

As fluids could not be brought near him without exciting great distress, a little lemon-juice, with sugar and water, was beat into a pulp with crumbs of bread, and offered him in a teaspoon; when his peculiar manner of swallowing was remarked. He insisted upon taking the spoon into his own hand, and frequently carried it backwards and forwards, to and from his mouth; then turning his eyes away, he would suddenly thrust it, with its contents, into his mouth, with a sort of snatch, and again instantly and violently withdraw his hand, grasping the spoon and throwing himself back with a convulsive effort. In this manner, however, he always accomplished the swallowing of the substances given in a pulpy form.

His ear was washed out with warm water, and a little oil was dropped into it. Twenty-four ounces of blood were drawn from his arm in a full stream, which did not, after many hours, show the buffy coat; and 120 drops of Battley's Liquor Opii Sedativus were given him, beat up with crumbs of bread.

When visited two hours after, his irritability was rather increased. He requested that no one should come into the room without first, from the staircase, informing him of his approach; and threatened to strike his nurse if she did not keep hold of his hand, or if she attempted to leave his bedside. His pulse was 120, and weak; the upper part of his neck appeared swelled, as if from the enlargement of the submaxillary glands, but he would allow no one to touch his neck; only putting his hand to the lower part of the larynx, he said, "Here is the place I feel the anguish." A glyster of turpentine, salts, and senna, was administered with great difficulty: it came away in about ten minutes, without producing any motion. A blister was applied to the pit of his stomach; four drops of croton-oil were rubbed on his tongue, and, to make sure that some of this medicine might get down into his stomach, he was prevailed upon to take some crumbs of bread, moistened with lemon-juice and water, which he swallowed with the same difficulties and peculiarities as before.

In about two hours after the use of the croton-oil, he had a large scybalous motion, from which he said he felt relief; but his irritability of temper, and anxiety of countenance, continued nearly the same; and his limbs were convulsed upon every exertion, or upon any noise being made in the room. The pupils

were observed to be a little dilated in the fore-part of the day; they became considerably so towards the evening, and contracted only slightly on a candle being brought before them. He had lost upwards of ten ounces of blood by the orifice in his arm, from his convulsive exertions; and he began to spit from his mouth a clear viscid saliva, which was frothy, and hung for several inches suspended from his mouth, till removed by the hand. His father conceived he had assisted him very much in bringing up this phlegm, by placing him on his stomach across his knee. He was placed in a tub, and four pailful of cold water were thrown over him, which he did not seem to dislike or to dread; but, on the contrary, expressed himself relieved from the convulsive action, which, when he was placed on his feet, made him resemble a person affected with St. Vitus's dance.

Some emphysema were perceived about his neck and the upper part of his shoulders, and a distinct crepitus was perceptible under the pressure of the fingers.

Four drachms of Battley's Liquor Opii Sedativus were given him, mixed up with crumbs of bread, and he was assisted to bed. A strait-waistcoat was rather loosely put over him, so that one attendant only might be necessary. The room was kept perfectly free from noise, and rather dark. About eleven o'clock at night, I left him as above described.

The report which his attendants gave of the patient during the short time he lived after this, was that he continued perfectly sensible and quiet, expressing himself thankful for the good effects he experienced from the means used; and that he spoke of the cold affusion as having relieved his thirst, which he attributed to some of it having got down his throat during its application. He never once attempted to sleep, nor complained of feeling uneasy for the want of repose; but was much inclined to talk, and spoke with confidence of being much better next day.

About four o'clock in the morning, five hours after I parted with him, he said he felt so well that he thought he could eat some bread and butter; and, a small slice being given him, he ate it in the way he had formerly taken the other things, and requested afterwards to have something to drink. Some cold tea was brought him, which when he saw, he hurriedly said that there was too much of it; and, having his head raised a little, whilst stretching out his hand towards the cup, he was seized with one of the convulsive spasms of his neck, and expired; being just thirty hours from the time his mother was first alarmed by the appearance of impending suffocation.

*Examination of the body.*—About twenty-seven hours after death, on inspecting the body, the neck and upper part of the shoulders had an emphysematous appearance and feel, and the crepitus was still distinct. The face had no appearance of convulsive action. Upon dissecting off the integuments of the neck,

the cellular membrane was found to be distended with air, and the submaxillary glands to be enlarged.

The brain had no unusual marks of vascularity, and there was no effusion of any kind into any of its cavities.

The larynx and the trachea, throughout their whole length, showed appearances of great inflammation. The œsophagus, immediately behind the larynx, had also some marks of inflammation; but in no other part did it, or the stomach, which contained a small quantity of a yellowish fluid, show the least appearance of disease.

In the chest, there were neither adhesion nor effusion. The right lung was rather of a red colour; and, in the left lung, air, in some places, had escaped into the cellular membrane, and was lodged here and there in small sinuses about the size of crow-quills; but this appearance was to no great extent. The pleura costalis, especially on the right side, was of a red colour.

*Eltham ; July, 1826.*

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*Note by MR. SHAW, relative to the preceding Case.*

MR. KING, after having examined the body, sent the larynx and pharynx, with portions of the trachea and bronchiæ, for my inspection. As the parts were quite fresh, and had not been macerated in water, nor their colour changed by spirits, I had an opportunity of examining them with as much advantage as if I had been present at the dissection. The mucous membrane of the larynx bore marks of having been in the highest state of inflammation, being loaded with vessels, as the conjunctiva is in acute ophthalmia, and with numerous specks of purulent secretion, which at first view seemed to be apthous sores. The upper part of the pharynx was also inflamed, but not nearly to the same degree.

As these appearances did not correspond with what I had seen in the dissection of two patients who died of hydrophobia, but so nearly resembled the effects produced by common acute inflammation of the larynx, I suspected that the disease had not been hydrophobia, but an instance of that violent spasmodic affection consequent on inflammation of the larynx, and which is known to be very similar in its symptoms to those of hydrophobia. Unwilling, however, to rely on my recollection of the appearances presented after hydrophobia, I carried the parts, while still quite fresh, to Dr. P. M. LATHAM, who I knew had very lately examined a case of this kind. He was of the same opinion with me, that, as far as the appearances of the larynx would enable us to judge, the case had been merely an attack of very acute laryngitis.



At this time I had not received the account of the case, which no person, on perusing Mr. King's statement, can doubt to have been one of hydrophobia.

#### FEVER.

*Cases of Fever, treated at ST. GEORGE'S HOSPITAL, by Dr. CHAMBERS; with a few Practical Remarks.*

THE advantage derived from the free use of calomel, assisted by more direct purgatives, in the treatment of the common continued fever of this country, is now almost universally acknowledged. In fact, those who have been in the habit of treating this disease, must have observed that, in most instances, when purgatives have been early and steadily administered, all the symptoms have in a short time yielded to them.

The following case is an example of the effect produced by this simple treatment.

George Pringley, ætatis thirty, coachman, was admitted on the 23d of August. He complained of a sensation of weight in his head, with unusual dullness of intellect, and of nausea and want of appetite; he appeared much emaciated. His pulse was 120, small; his skin dry and hot; his tongue was covered with a thick fur in the centre, its edges being of a bright red colour; his bowels were irritable; his stools dark, slimy, and offensive; and his abdomen full and hard.

He said he had been ill eleven days with the above-mentioned symptoms, which followed an attack of shivering.

Twelve leeches were applied immediately to his forehead and temples. He was placed on "fever diet,"\* and was ordered to take the following medicines:—R. Hydrarg. Submur. gr. v.; Pulv. Antimon. gr. iv. M. fiat pulvis omni nocte sumendus.—R. Aquæ Pimentæ ʒ jss.; Rhei Pulveris ʒj. M. fiat haustus omni manè sumendus.—Sumat Haustum Salinum sextâ quâque horâ.

Two days afterwards he was much better, and was then ordered to take his calomel and James's powder every other night, and the rhubarb draught the following mornings.

On the 28th, (three days more,) he was free from all uneasiness in his head; his tongue was clean and moist; his skin was cool; his motions healthy; and his appetite improved. He now complained only of debility, to which the frequency of his pulse (still beating about 100 in a minute,) was attributable. He took the following draught for a few days: viz.

R. Infusi Cascariæ ʒ xss.; Acidi Nitrici diluti ʒss.; Syrupi ʒj. M. fiat haustus ter die sumendus.

His diet was gradually improved until he was discharged cured, on the 3d of September.

\* This diet consists chiefly of farinaceous decoctions.

It would be easy to multiply instances of the efficacy of this mode of treatment in a great majority of cases of fever, even when the remedies in question have not been prescribed until the second or third week of the disease.

In spite, however, of the great advantage derived from this practice in general, it is well known that sometimes a case of fever will occur, in which, although most of the symptoms may be more or less mitigated by the free use of these evacuants, yet, after all, it will be obvious that the patient is still suffering from the irritation of fever. It is under these circumstances that mercury, exhibited in small and repeated doses, appears to exert the most decided influence over the disease. It is, therefore, very important to ascertain, if possible, what are precisely the symptoms in the progress of continued fever, which should induce the practitioner to change his mode of treatment, by abandoning the use of direct purgatives, and adopting the alterative practice just mentioned.

The subjoined cases may, perhaps, contribute towards the elucidation of this point. In the first of these it will be seen that the original febrile action was much mitigated by the early treatment, but that there still remained unremoved some source of constitutional disturbance, which afterwards yielded to the alterative influence of mercury.

Thomas Kelly, aged forty-five, labourer, was admitted into the hospital on the 9th of August, 1826. He complained of headache and confusion of intellect, and of fulness and heavy pain of the abdomen, particularly about the epigastrium and hypochondria; the pain was increased on firm pressure being made over the parts affected. His pulse was 110, and full; his skin hot, his tongue furred; and his bowels open. The disease was of ten days' standing.

He was ordered to have fever diet; to lose twelve ounces of blood immediately from the arm; and to take the following medicines: viz.—Calom. gr. v. every night, and a Senna Draught every morning.

The blood drawn was not inflamed, but the crassamentum was large in proportion to the serum, and very firm.

He continued the purgatives until the 14th instant, on which day he had no pain or uneasiness either in the head or abdomen: his pulse was eighty, soft; his skin cool, his tongue moist, and his bowels open. His only complaint was debility.

The Calomel and purgative medicines were now left off, and he was ordered to take thrice daily a draught consisting of Mistura Camphoræ, with a few drops of Spiritus Ammonie Aromaticus.

The next day, however, although he had no return of pain or uneasiness, and no acceleration of the pulse, yet his skin was

again very hot, his tongue had become dry and somewhat furred, and his general aspect was dull and heavy.

He was now ordered Hydrarg. Submur. gr. iij. ; Pulv. Antim. gr. iij. M. fiat pulv. quartâ quâque horâ sumendus.—Repetatur Mist. Camphoræ c. Spiritû Ammoniaci Aromatico.—Applicetur Emplastrum Cantharidis nuchæ.

He continued the powder, gradually diminishing the daily quantity of the calomel as the symptoms improved, until the 25th. He had then recovered his natural manner, and every function was restored to its healthy condition. His mouth was not affected by the mercury.

After taking for a few days the following tonic draught —

R. Infusi Cascariæ ℥jss. ; Ammoniaci Carbonatis gr. v. M. fiat haustus ter quotidie sumendus,

he was discharged cured.

It is not intended here to enter at length into the pathology of these changes. It will suffice to say that, when this cessation, or distinct mitigation, of the early symptoms of the disease takes place, it is probable that the primary fever has been subdued, and that what remains of constitutional disturbance depends on those organic lesions which are now well ascertained to be ordinary consequences of continued fever. These lesions, in their turn, excite a new febrile action in the system, which ought by no means to be considered as a relapse of the original disease. It is, in fact, a secondary fever, depending on the irritation produced by structural injury, and is clearly distinguishable from the primary disease by its remittent or hectic character, as well as by the extraordinary irritability, joined with prostration of strength, which accompanies it after it is established.

In the case which has been just related, it may be presumed, from the readiness with which the symptoms yielded to the treatment, that the secondary disease was in its infancy; and that the injury of structure was as yet very limited in its extent.

It happens, however, occasionally, that, long before the primary disease has been overcome, the secondary irritation has commenced; so that, when the former is afterwards subdued, the latter presents itself to us in an aggravated form, and is besides the more intractable, because the strength of the patient is proportionally diminished.

The following case is an example of this variety of the disease. It will be seen that, in this instance, whilst the primary fever was as yet unsubdued, the constitution was suffering much additional irritation from the injury early inflicted on the mucous membrane of the bowels; so that, when the symptoms of the original disease were at length relieved by the treatment, an irritative fever of considerable intensity

remained, which required great caution and delicacy in its treatment, and only yielded, after many days, to the alterative effect of mercury.

Maria Green, aged thirty, a single woman, living in Pimlico, was admitted into St. George's Hospital, on the 7th of August, with the symptoms of severe continued fever; amongst which were most remarkable the pain and confusion of the head, the great frequency of the pulse, the unusual fulness and hardness of the abdomen, and the frequent passage of dark, slimy, and offensive motions. These symptoms, she said, had commenced eight days before her admission.

She was placed on fever diet, and treated, for the first few days after she came into the hospital, with Calomel, Senna, and Antimonial Wine in Saline Draughts; and leeches were applied to her abdomen, and also to her forehead and temples.

In a few days these remedies relieved the pain in the head, removed the fulness and hardness of the abdomen, and rendered the motions of a better colour. But, nevertheless, there remained considerable anxiety of the countenance, and some unsteadiness of the mind, with extreme debility and deafness. The pulse was still very frequent (130), and occasionally *beat doubly*. The skin, although sometimes cool, was at irregular intervals (generally twice a-day) pungently hot, and the cheeks were then brightly flushed; after which she was covered with a profuse hot perspiration. The tongue gradually lost its fur, but became of a bright red colour, with a smooth, glazed, and viscid surface, which after a time was spotted with aphthous vesicles. Although the fulness of the abdomen had subsided, yet there was a degree of tension still remaining; and sharp pain was felt towards the right iliac region when firm pressure was made over that part. The motions were frequently liquid, of a bright yellow colour, and a very offensive smell. Added to this, there was at intervals a distressing irritability of the stomach, with vomiting of green bilious fluid.

When this train of symptoms, which clearly showed that the ulcerative process was going on in the ileum and cæcum,\* presented themselves, the patient was ordered to take the following pill:

R. Hydr. c. Cretâ gr. ij.; Extr. Papav. albi gr. iij. M. fiat pilula sexta quâque horâ sumenda.

The irritability of the bowels was from time to time so far restrained by small quantities of opium, and by astringent enemata, as to prevent excessive exhaustion, but nevertheless several mo-

\* It may be worth while to remark, that the train of symptoms mentioned as characterising ulceration of the mucous lining of the bowels, would have been complete without the tenderness on pressure which was present in this case; for extensive destruction of the interior of the bowels, about the ileo-cæcal valve, is often found after death, although there has been previously no tenderness on pressure. In fact, this symptom is not present, except when the ulceration of the mucous membrane has excited some irritation in the neighbouring peritoneum.

tions were passed daily; and a small quantity of port wine, with water, was now and then administered under circumstances of extraordinary exhaustion. An opiate plaster was also applied to the abdomen. These latter expedients, however, were used merely as palliatives; but the mercurial pill was considered to constitute the essential part of the treatment, and was therefore steadily continued from the 13th to the 27th of August.

On the 27th, the gums were affected by the mercury.\* The irritability of the bowels now at once entirely subsided: she had on that day only one motion, and that of a natural character. The pulse, which was just before 120, was now only ninety; the skin was cool throughout the day; the tongue became moist, and of a healthy surface and colour; the countenance was composed; the mind also was clear and tranquil, and the appetite returned.

She then left off the Mercurial Pill, and took only a small quantity of Castor-oil occasionally; and thrice a-day a Saline Draught, with three minims of Tincture of Opium.

Since that time she has been almost uniformly improving; can now eat animal food with appetite; and will probably leave the hospital in a short time.

It will be observed, that in the last case it is taken for granted that the patient has survived ulceration of the mucous coat of the bowels. That this is not a very uncommon occurrence, is now well established by the dissection of those who have accidentally died some time after they have been convalescent from fever, and in whom the cicatrization of ulcers in the bowels has been very clearly seen. It is not, however, intended here to enter into this question, respecting which, indeed, those who are acquainted with the subject will have no doubt or difficulty.

\* Soreness of the gums is by no means indispensable; for the good effects of this treatment are often fully exhibited, in the relief of the symptoms, without any tenderness of the mouth.

## CRITICAL ANALYSES.

*Quæ laudanda forent, et quæ culpanda, vicissim illa, prius, cretâ; mox hæc, carbone, notamus.*—PRÆSIUS.

*Transactions of the Medico-Chirurgical Society of Edinburgh.*  
Vol. II. With Plates.—8vo. pp. 411. Black, Edinburgh;  
Longman and Co. London. 1826.

Of twenty-seven articles contained in this volume, thirteen only come under the denomination of "papers," the rest being made up of detached cases. Eight of the communications embracing general observations, are by practitioners not resident in Edinburgh; so that the contributions from the practitioners of the northern metropolis amount only to five papers containing general remarks, and nine cases. The cases we shall pass by, throwing such of them as are interesting into the department of our COLLECTANEA; the papers we shall analyse.

*Account of the Exanthematous Ophthalmia, with Observations on its Treatment.* By JAMES WARDROP, Esq. &c.

The object of this paper is to describe a particular form of ophthalmia, which the author asserts has generally been confounded with scrofulous inflammation. As the name implies, this variety of the disease is connected with cutaneous eruptions, some form of which always accompanies or precedes: sometimes it immediately succeeds measles, scarlatina, and other exanthematous diseases; but usually it does not appear till some time after they have subsided.

"The symptoms of the exanthematous ophthalmia are very characteristic; for, besides being connected with eruptions, and confined to young people, the excessive intolerance of light, the enormous secretion of tears, and the relief from forcibly squeezing the eyes, are symptoms quite peculiar. The patient afflicted with this disease can scarcely hold up his head, and, if he is desired to open his eyes, he is affected exactly as if he were looking on a mirror reflecting a bright sunshine, every attempt causing a profuse gush of tears, and being instantly succeeded by a violent and involuntary squeezing of the eyelids, and knitting of the eyebrows. He excludes all light, not only by holding down his head and squeezing the eyelids together, but by pressing a handkerchief firmly on them, or by resting his face against a chair in some dark corner of the room. When in bed, he lies with his face buried in the pillow; a circumstance which, of itself, points out the peculiarity of this inflammation, and distinguishes it from all others.

"The intolerance of light is always most severe in the morning; but in the afternoon it sometimes remits so much as to allow the

patient to open his eyes, and see to a very considerable degree, for some hours. The tears, besides being of an extraordinary quantity, are of an acrid, irritating quality, producing violent paroxysms of sneezing, scalding the cheeks, the alæ of the nose, and the lips; so that these become inflamed and swelled, and sometimes covered with pustules and cutaneous ulcerations. The eyelids are also swelled, and have turgid veins on their surface. On trying to force them open, a torrent of tears gushes out; and it is not without occasioning great pain that a small portion of the globe can be exposed. An attempt to get a view of the cornea gives great pain, and it is almost impossible to succeed. The palpebræ, as well as the sclerotic conjunctiva, are but slightly reddened; the vessels appearing as a few distinct trunks, instead of the diffused redness observed in many other inflammations. In general, both eyes are attacked with this disease, though one more violently than the other." (P. 3.)

Along with the local symptoms, there is more or less constitutional disturbance, and the disease remains for many days or weeks; and Mr. Wardrop has known it continue for months, "and even years."

The treatment consists in general rather than in local remedies: indeed, cleansing the eyes with warm water is the only application which ought to be had recourse to at the beginning.

"The general treatment which is commonly necessary for the cure of the exanthematous ophthalmia, consists of first completely evacuating the bowels, and afterwards regulating them; of giving alterative and tonic remedies; and of producing an artificial discharge. Even when this ophthalmia appears in a feeble and emaciated child, it will usually be found that, by the exhibition of purgatives, feculent matter, both unnatural in quantity and of a bad quality, will be evacuated; and, until its evacuation has been effected, other remedies avail little. One grain of calomel with three of rhubarb, given at bed-time, and repeated every other night, four or five times, whilst jalap or senna is taken the alternate mornings, will generally answer the purpose of bringing away the feculent contents of the primæ viæ. But, whenever the quality of the evacuations improves, these medicines must be given with caution; and one dose of the rhubarb with calomel, given only once in six or eight days, and the senna or jalap occasionally, will be sufficient. For, though the greatest benefit will be obtained by evacuating the bowels, violent purging will be found equally prejudicial. When the treatment has been so far advanced, that only one dose of calomel appears necessary in six or eight days, then at this time tonic and stomachic medicines may be advantageously administered. Of these I have found none so generally useful as the carbonates of soda or potass, either given singly, or combined with rhubarb and the bitter infusions. In some instances

the mineral acids have been very useful, and also the preparations of iron. Whilst using either of these remedies, much attention is also due to food and habits of life. All wines and malt liquors are particularly hurtful; and the patient should live chiefly on farinaceous vegetables, with but a very small proportion of animal food. The body should not be loaded with clothes, and the head particularly should be slightly covered; protecting the eyes with only a single and narrow fold of black silk, hanging loosely over them, and not wearing a large bonnet. The hair ought to be cut very short; and the greatest advantage will be found from sponging the head and neck with water every morning,—using it at first of an agreeable temperature, and making it colder by degrees; particular care being taken to dry the head well afterwards." (P. 6.)

When the disease has been severe and long continued, it often happens that the patient's general health gradually declines; and, when this takes place, the ophthalmia is apt to return. The seton or pea-issue are said to be very beneficial in preventing a relapse; and accordingly we are advised to employ one or the other, with long-continued attention to the bowels, and the other means usually adopted to invigorate the system.

*Observations on the Nature, Causes, and Treatment of Beriberi.*

By WM. HAMILTON, Esq. Surgeon, H.E.I.C.S.

The disease which forms the subject of this paper has been described by various writers, and the author before us adds little to what has already been stated regarding it. It is almost exclusively confined to Ceylon, the Malabar coast, and that part of the country extending from Madras to Ganjam. The symptoms are thus detailed:

"Great debility, with difficulty of respiration, a sense of weight and oppression at the lower end of the sternum, and an almost paralytic state of the thighs and legs, which, soon after the commencement of the attack, became œdematous; as did also the face, and indeed the greater part of the body, with a general sense of coldness over the surface; pulse 120, small, feeble, and intermitting. All these symptoms went on increasing until the death of the patient, which took place within forty-eight hours from the time that I first visited him. A short time previous to his death, he was seized with a violent fit of vomiting, spasms of the abdominal muscles, and increased dyspnœa, which carried him off." (P. 17.)

As in almost all other diseases of tropical climates, bleeding, calomel, and opium, are recommended. We are prevented, however, from entering more fully into particulars at present, because we have received an original Paper on the subject, which we purpose laying before our readers on a future occasion.



*Observations on Chronic Inflammation of the Iris.* By ALEXANDER WATSON, Esq.

This is a very short paper: it refers only to the appearances presented by the eye, no mention being made of the treatment. The phenomena are thus detailed:

"In this disease, the first change observed in the eye is a partial irregularity of the pupillar margin of the iris, at one or more points. This irregularity of the margin of the iris alters, of course, the form as well as the size of the pupil. In some cases it is more dilated, and in others more contracted, than natural. The iris loses its proper colour; and its pupillar margin becomes partially or wholly drawn backwards, in consequence of its partial or complete adhesion to the capsule of the crystalline lens. The motions of the pupil at the same time become impeded, in proportion to the number and extent of the adhesions. In some cases, the adhesion of the iris takes place to a considerable extent, at one point: in other cases, the adhesion takes place, to a smaller extent, at several points, which, in the progress of the affection, by extending, become one continued adhesion, involving the greater part or the whole of the pupil. That part of the iris between the adhesion and the ciliary margin assumes a convex form, by projecting to a greater degree, at this part, towards the cornea, than it does in its healthy state. By this projection, the size of the anterior chamber of the aqueous humour is diminished, and that of the posterior chamber is proportionably increased.

"Where the iris adheres to the capsule of the lens, an effusion of lymph may, in general, be observed, forming the connecting medium. The capsule of the lens generally becomes opaque; and frequently small portions of lymph, and sometimes of pigment, from the posterior surface of the iris, can be seen upon this capsule. In some cases a deposition of lymph takes place upon the inner surface of the cornea, occasioning a dimness and opacity of this part. Vision gradually becomes impaired as the disease advances, till it is quite destroyed. And this last symptom (impaired vision) is commonly the only one by which the patient is conscious that mischief is going on in the eye.

"The progress of chronic inflammation of the iris is remarkably slow and insidious, having been reported, in several cases, to have continued for many years gradually destroying the sight; and that, too, notwithstanding the employment of various remedies to arrest its progress. In some cases it has appeared to take place after an attack of acute inflammation of the eye, and in others after rheumatic complaints." (P. 43.)

The disease above described is regarded as exactly resembling chronic inflammation of the serous membranes in the cavities of the chest and abdomen; and this analogy is supposed by the author to afford a strong proof that the cavities

of the aqueous humour are likewise lined by a serous membrane. The appearances of the eye are illustrated by an engraving.

*An Account of the Yellow Fever, as it appeared in the Queen's Regiment, in Barbadoes, in 1816 and 1817.* By A. J. RALPH, M.D. Assistant Surgeon to the Regiment.

We have been inundated with accounts of the yellow fever during the last few years, and, as the subject is one of comparatively little interest to the British practitioner, we shall take leave to pass over this paper; by which, however, we by no means wish to insinuate that the account before us is not quite as good as most others. The author is a non-contagionist.

*Observations on the prevailing Opinions respecting Respiration and Animal Heat; with Experiments.* By C. J. B. WILLIAMS, M.D.

In this country, the most prevalent theory on the subject of animal heat, is that which was founded on the discoveries of BLACK, PRIESTLEY, and LAVOISIER, and which was afterwards modified in consequence of the experiments of Mr. ELLIS. According to this doctrine, venous blood contains a quantity of superfluous carbon, which it gathers in the course of the general circulation. To remove this carbon is the office of the lungs, and the evolution is supposed to be effected by a process of secretion, the carbon uniting with the oxygen of the inhaled air, so as to constitute the carbonic acid expired. The other theory originated with LA GRANGE, and according to it the blood, in its progress through the lungs, has oxygen substituted for carbonic acid; the arterial being reconverted into venous blood by the combination of its oxygen with carbon, in the course of the circulation. Now, the object of the first part of the paper is to examine the pretensions of these theories, and show the grounds on which they are respectively founded;—the question is thus argued:

“The chief peculiarity in Mr. Ellis’s theory is, that it considers arterialisation as the result of a process of secretion. Now, in several points of view, this doctrine appears objectionable, as being opposed by known facts in chemistry and physiology. In the first place, it is assumed that the pulmonary vessels have the power of isolating and secreting an *elementary* substance, simple carbon, from the principles composing the blood; although such an opinion is at variance with the laws of secretion, as far as they are known. It may be remarked further, that the secretory power, whatever it be, may be influenced by certain affections of the

nervous system, as the experiments of modern physiologists sufficiently indicate; and, were the change of the blood in the lungs the result of a secretion, it might be expected that it would be influenced by similar laws. But an appeal to the same experimentalists will prove that the case is otherwise, and that the process of arterialisation is scarcely, certainly not correspondently, impaired by injuries of the nervous system.

"In the next place, if we suppose carbon to be secreted from the exhalants in the lungs, I ask, does any analogy justify the opinion that this carbon can unite with oxygen at the temperature, and in the circumstances, in which they are here supposed to exist? I rather think, that whoever attentively examines those natural processes, in which carbonic acid is formed, will concur with me, if I reply in the negative. It is true that, in some putrefactive processes, carbonic acid may result from the union of the carbon of the putrifying matter with the oxygen of the air at a low temperature; but let it be remembered that the combination is, in such instances, effected by the co-operation of other affinities, and, consequently, that the cases are not parallel. The case under our notice is that of simple, isolated, and consequently *solid carbon*, in its habitudes with atmospheric air. Nor can any aid be derived from the agency of a vital principle, (that omnipotent power, to whose operation the most miraculous effects have been ascribed;) for, according to this theory, the union can only take place after the carbon has been excreted, and consequently removed beyond the sphere of such influence. This is, perhaps, the principal objection against the theory. But this is not all.

That the conversion of venous blood to the arterial state can take place out of the body, by subjecting it to the action of oxygen, is a fact too well established to admit of dispute; yet neither organic structure nor living action can operate here; and the advocates of this theory must therefore resort to some other mode to account for the supposed separation of carbon. This difficulty Mr. Ellis has attempted to remove, by attributing the change to the escape of carbon by *evaporation*; but such an assumption, as it attributes to carbon properties which it has *not*, can hardly be admitted.

"The other theory which I have noticed, is not, at least, liable to these objections. The absorption of oxygen by animal fluids, is by no means singular. Saliva and mucus have a faculty of absorbing oxygen, and again yielding it to other substances. Fourcroy has ascribed a similar property to albumen, which bears closely on our present subject. The simultaneous evolution of carbonic acid gas is rendered probable by the experiments of Macbride, Vogel, Sir E. Home, and Dr. Scudamore, which, although liable to some fallacies, seem sufficient to show its existence in the blood, and the facility with which it may be extricated. I consider this evolution as the result of a chemical displacement, caused by the superior affinity of oxygen for the blood." (P. 93.)

Having endeavoured to show that the change effected on the blood in the lungs consists in the acquisition of oxygen; and the loss of carbonic acid, Dr. Williams next inquires by what power such change is produced? He inclines to the opinion that it arises from a chemical affinity between oxygen gas and the blood; the oxygen, in the process of arterialisation, displacing the carbonic acid from venous blood. He prefers this explanation to that of the modern French physiologists, who ascribe the change to a vital exhalation and absorption: first, because the same change is produced out of the body; secondly, because this change does not cease in animals when most of the vital functions are interrupted; thirdly, because, in the experiments of Le Gallois, when the heart's action had ceased, and there could have been no active exhalation or absorption by the blood-vessels, yet, by inflating the lungs, the arterial hue was communicated to the blood, as far as the carotids; and fourthly, because many animal fluids possess the property of absorbing oxygen, while carbonic acid appears to exist in the blood in a very loose state.

The second part of the paper relates to the theory of animal heat, and, on this subject, our author is convinced that the union of carbon and oxygen, to the extent occurring in the body, is insufficient in itself to account for the constant and uniform temperature of so large a mass of matter, exposed to so many sources of cooling. At the same time, however, he is of opinion that the chemical union of these elements is a principal source of animal heat; but that, as it is only one of many changes "by which animal matters are resolved into simpler principles," so he conjectures that it forms a part only of the means by which the temperature of animals is supported. For the experimental details, we must refer to the volume itself.

*Cases illustrating the Contagious Nature of Erysipelas, and its Connexion with severe Affection of the Throat.* By JOHN STEVENSON, M.D.

This paper is in the form of a letter to Dr. THOMSON. The most interesting part of it relates to the connexion of erysipelas with a particular form of cynanche. We remember to have heard this pathological fact mentioned by Dr. CHAMBERS, in his Lectures, and have ourselves recently met with some examples of it. We subjoin Dr. STEVENSON's account:

"I enclose a short abstract of some of the cases which, in our late conversation, I mentioned to have occurred in my practice here, tending to prove the contagious nature of erysipelas, and to

show its connexion with a peculiar and severe affection of the throat, of which I do not recollect to have met with any description. This affection of the throat occurred so frequently in persons who had been much with erysipelatous patients, that I could not doubt their identity; and I came finally to the conclusion, that it was in reality erysipelas of the fauces, spreading occasionally to the adjacent parts in different directions. The febrile symptoms by which it was ushered in were generally severe, even in the milder cases: very full and frequent pulse; severe pain of head and back; restlessness, and great heat of the surface. The period at which the affection of the throat came on, after the accession of the fever, varied from the second to the sixth day. It commonly began with a red or purplish blush, more or less extensive, over the velum pendulum and uvula, accompanied with very little tumefaction, but with considerable pain in swallowing: often, after a few days, excoriation of the inflamed surface followed, with superficial ulceration, which at times soon healed, but at other times spread, and discharged a good deal of purulent matter. In many cases the disease terminated without extending farther than the parts mentioned, but in a few it spread to the larynx, producing a state of respiration very like that of idiopathic croup: in others, it extended to the pharynx and œsophagus. When the last became affected, fluids, and even solids, could be partially swallowed without much apparent difficulty; but, after a few seconds, pain was felt in the course of the gullet, an inverted action began, and they were wholly or partially returned to the mouth. In some protracted cases, glandular swellings appeared in the neck, which suppurated externally.

"This disease was readily distinguishable from cynanche tonsillaris, by the want of swelling, by the redness being more diffused, and by the pyrexia being generally greater than could have been expected from the degree of local affection. From croup, it was distinguishable by the larynx being affected in a small proportion only of the cases, by the inflammation not commencing there, (at least, in any case which came under my observation,) and by the age of the patients. From scarlatina, it was distinguishable by the absence of cutaneous eruption, and by its attacking persons who had already had that disease.

"Copious and repeated bleeding, with brisk purgatives, and, in every case where the throat was severely affected, the application of a large number of leeches to the neck, appeared to me to be the mode of treatment which was most successful. All the cases that came under my management, both of the common erysipelas and of the affection of the throat, were treated in this manner. I have stated the event of all those detailed, and it affords a fair specimen of the general results of the cases which came under my care." (P. 128.)

(To be continued.)

*The Anatomy of the Fœtal Brain; with a comparative Exposition of its Structure in Animals.* By FRÉDÉRIC TIEDEMAN, Professor in the University of Heidelberg, Member of the Academy of Sciences of Munich and Berlin, &c. &c. Translated from the French of A. J. L. JOURDAN, by WILLIAM BENNETT, M.D. To which are added, some late Observations on the Influence of the Sanguineous System over the Development of the Nervous System in general. Illustrated by fourteen Engravings.—8vo, pp. 324. Carfrae and Son, Edinburgh; Longman and Co. London. 1826.

THE anatomy of the brain, in all animals, and under almost every conceivable circumstance of health and disease, has occupied the attention of many of our most distinguished brethren, both at home and abroad, during the last twenty years; and there is reason to suspect that the merely mechanical part scarcely admits of improvement: the description may vary, but that which is described remains the same. The very distinguished author of the present work appears to have struck out for himself a line of investigation, in which the ground has been less trodden—the peculiarities of the Fœtal Brain. There is every appearance of candour and good faith in the manner in which the details are given, and we nothing doubt their accuracy: at the same time, the nature of the investigation places great difficulties in the way of verifying his observations, and thus unavoidably detracts from the general interest of the subject.

Every source whence light may be admitted upon the obscurity of the nervous system, ought doubtless to be appreciated, and our attention has been too exclusively confined to the brain in its adult and perfect state. To what extent an acquaintance with the manner in which nature builds up the cerebral fabric may elucidate its operations, would not be easy to determine; but, as physiology must always take anatomy for its basis, no one can deny the possibility of some assistance being gained. Perhaps, the first step towards erecting a more permanent superstructure, is the removal of that which is flimsy and unsubstantial: thus far the labours of TIEDEMAN have already been negatively available, as they have shown that many opinions, which have heretofore passed current with regard to the structure of the brain, are the offspring of imagination. A curious and interesting fact, of a positive character, which he has proved by comparative anatomy, is that the brain of the human fœtus, in its progressive development, passes through all the principal degrees of organisation, at one or other of which it is permanently

arrested in the vertebral animals; thus showing that nature follows a regular plan in the evolution of the brain, stopping short at a certain point, or contributing to the further perfection of the organ, according to the rank which the animal is destined to hold in the scale of existence.

The idea of GALL, that the medullary matter is the product of the grey, is entirely disproved by the result of these investigations; and some further interesting facts relative to the production of the different portions of the nervous system, are given in the Addenda placed at the end of the work, containing the views of M. SERRÈS. According to this physiologist, the spinal marrow is produced by the intercostal arteries, the cerebellum by the vertebral, and the brain by the carotids; so that the question of the pre-existence of the different parts is contained in that of their arteries: such order being, first, the spinal cord; secondly, the crura cerebri and tubercula quadrigemina; and, lastly, the cerebellum.

But it is in vain to enter upon any analysis of such a work: to the general reader it is not of sufficient interest; while the anatomist would not, or ought not, to be contented with any review, however extended.

The translation is given in good language, and the plates are distinct and well executed. We must remark, however, of Fig. 7, Plate 1, that it has a ludicrous resemblance to a human head; the chin, mouth, nose, and right eye, are quite distinct: this ought to be avoided, as it gives the idea of the parts being caricatured.

The following quotation will show the general views of the author, and the manner in which his meaning has been rendered by his translator.

“ In my method of viewing the subject, there are but two paths, hitherto little frequented, which can lead to the knowledge of the structure of the brain: these are comparative anatomy, and the anatomy of the fœtus.

“ Comparative anatomy unveils to us the origin and successive development of the brain and nervous system, from the most simple animals, up to man, the most complicated. There is no set of organs, in the formation of which we find so perfect a gradation from the simple to the compound, as in the cerebral and nervous system: in fact, this system is established on an uniform plan in the whole animal scale. So, in studying the gradual complication of the structure of the brain in animals, can we have a clear idea of the complex organisation of this viscus in man, and at length succeed in comprehending its assemblage and relations.

“ Though the moderns have well estimated the utility afforded

by comparative anatomy in this subject, they have, however, profited little from the advantages placed before them. If we take a rapid view of the great work of Gall, we find one idea reigning through the whole;—that it is necessary to study the structure of the brain and nervous system, gradually ascending from the more simple animals, up to man. But what has he done? He has merely described and represented, respecting the nervous system of animals, the nerves of the caterpillar, the brain and spinal marrow of the chick, and of some of the mammiferous animals; yet even his work on this subject is not exempt from errors. To set out from so small a number of data, in order to arrive at general conclusions respecting the structure of the brain and nervous system, would indeed render the question still more complicated than it really is, in place of throwing one salutary ray of light upon it. We should consider these partial works but as materials of a grand edifice; but while we employ them as elementary principles for general propositions, we cannot fail to be led into new errors. No axiom relative to any point of anatomy or physiology can be established, unless skilfully deduced from all the facts and observations on the object in question.

“As, by the study of the brain and nervous system of animals, we can alone arrive at the knowledge of the gradation which the former undergoes in its formation and progressive complication, so also shall we have need of a comparative psychology, to conceive the uses and manner of action of each portion which composes this mass. We must observe attentively the phenomena of cerebral action, from animals the lowest in the scale up to man, and then compare them with the structure of the organ itself. This comparative study of the actions and organisation of the brain in the different animals, will dispel the cloud from o’er the functions devolving on its separate parts; a knowledge to be derived from no other means than those already mentioned. It is a general truth, recognised at present, that the cerebral functions of animals become more numerous and diversified, according as their brain and nervous system possess a more complicated structure; and we also know that the nerves of sense, and their roots in the brain, are more voluminous, according as the organs of sense are better developed. We cannot, then, doubt the existence of a perfect relation, an intimate connexion, between the acts of intelligence in animals, and the structure of their brain.

“In following this method, we may arrive at the knowledge of the function of each part of the encephalic mass; but the intimate essence, the proximate cause of all these phenomena, will still remain shadowed from our view by the thick veil of darkness which covers them. Is the mind similar to the matter of the brain? or, rather, are they different things; and is then the brain in some degree the organ, the material instrument of the mind? Such problems, philosophers and physiologists have not yet been able to resolve, nor never will. I repeat it, anatomy, physiology,



and psychology, may teach us the structure of the brain, and the action or function of its different parts; but they will never unveil to us the essence of this action:—Such is my opinion." (P. 2.)

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*The Anatomy of the Brain, with a general View of the Nervous System.* By G. SPURZHEIM, M.D. of the Universities of Vienna and Paris; Licentiate of the Royal College of Physicians in London. *Translated from the unpublished French MS.* by R. WILLIS, Member of the Royal College of Surgeons in London. With eleven Plates.—8vo. pp. 234. London: S. Highley, 1826.

WE have been in the habit, in this country at least, of speaking of GALL and SPURZHEIM conjointly, but, from the tenor of the present work, it is pretty clear that the latter would be better pleased to have the name of his colleague dropt. It appears that he attended Dr. Gall's lectures in 1800, and studied under him till 1804, when he became associated with his master, and soon after began his travels; since which time he seems to have led rather a wandering life, sometimes in Germany,—sometimes in France,—sometimes in England,—and at all times seeking for proselytes. In the first instance the works of the two anatomists appeared as the results of their common labours; but now we are told, that "history will assign to each his share in the works that have issued under their joint names:" and again, "the works which Dr. Gall has published in his own name, fix the extent of his phrenological knowledge." Now, we suspect that history, if it meddle with the matter at all, will be somewhat puzzled between the rival Doctors: for, as Dr. Gall taught Dr. Spurzheim, and as certain volumes were published in which his name stands first, we would presume that he had some share in the discoveries which they contain. But, on the other hand, it would seem to be implied in the sentence above quoted, that Dr. Gall had nothing to do with the works published jointly, as those given to the world in his own name *fix the extent of his phrenological knowledge*. What share these gentlemen have had in the discoveries to which they respectively lay claim, is best known to themselves, and will probably remain so, unless "history" be very much at a loss for something to do.

Their productions may be viewed in two lights—as anatomical, and as physiological. With regard to the former, we believe there is little to be found in their writings that had not been previously described by VIEUSSENS, MONRO, VICQ D'AZYR, and REIL: nay, even with regard to the manner of dissecting the brain, the first of these employed the method of scraping, and the last that of hardening the

parts in spirits, so as to admit of their being more minutely unravelled. Many of the descriptions claimed by Gall and Spurzheim may be found in papers by Reil, published in *GREN'S Journal* so early as 1795, being anterior to the earliest period at which Gall lectured. With respect to their physiology, setting aside the idea of a general connexion between the intellectual functions and the development of the brain, both in man and the lower animals, which is not peculiar to them; and referring to that which is especially their own,—viz. the fixing of the precise localities of their five-and-thirty "organs," we regard it as one of the bubbles of the day, fit only for grown-up children and would-be philosophers.

The work is divided into nine sections: the first contains general reflections on the Nervous System; the second, the division of the Nervous "Apparatuses;" the third relates to the Nerves of Voluntary Motion, and of the External Senses; and the fourth to the best manner of examining the Structure of the Brain. Dr. Spurzheim's method is unquestionably preferable to that more usually adopted: we subjoin the most important part of the description.

"Our physiological views do not, it must be evident, allow us to go on cutting the brain into slices: this procedure, indeed, ought rather to be entitled a destruction, than an anatomical demonstration of the cerebral structure: it is precisely as though one should pretend to dissect a leg or an arm, by slicing down these members transversely; or to show the structure of the thoracic and abdominal viscera, by treating the trunk in a similar manner, and giving names to the appearances exposed after each successive slice. We commence our dissection at the place where the proper cerebral masses are added to the nervous parts already described; we trace them in their continuations, and in their connexions mutually, and with the nerves of the five senses and of voluntary motion: in short, we proceed in the dissection of the brain in a manner precisely analogous to that which is followed in the anatomical demonstration of the other parts of the body.

"Besides the above general anatomical principle as regards procedure, it is important to know that, on account of their extremely delicate organisation, the structure of several cerebral parts may be more easily and clearly exposed by means of scraping, than by cutting. This is the reason why I frequently prefer the handle to the blade of the scalpel, for removing parts that cover those whose course I would show: for instance, the passage of the pyramidal bodies across the annular protuberance; the continuation of the anterior commissure through the striated bodies into the middle lobes of the brain, and of the anterior pillars of the fornix, onwards to the mammillary bodies and interior of the thalami.

"The brain should be removed from the cranium, care being taken not to tear the crura at the superior edge of the annular protuberance, (an accident that is very apt to occur,) nor to injure the medulla oblongata at the lower edge of the same part; and to cut the spinal mass so low down as to obtain, besides the entire medulla oblongata, the upper part of the true spinal cord. The brain, thus freed from the skull, is then to be put into a plate, with the basis uppermost. The cerebellum and medulla oblongata, having lost the support of the bone, now fall backwards. In this position, all the appearances presented by the base of the brain are visible. Having considered the cranial nerves in the manner described in the preceding section, the structure of the true cerebral masses is to be examined, commencing with that of the cerebellum." (P. 103.)

The fifth and sixth sections are devoted to the Cerebellum and Brain; in the seventh, the Commissures are explained; and in the eighth, the communication of the nervous parts with each other; while the ninth and last treats of the connexion between certain points in anatomy and physiology.

The whole presents a compendious view of the opinions of Gall and Spurzheim, in a more accessible form than their large works; and it is but justice to add, that the engravings (eleven in number) are very beautifully executed.

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*Illustrations of Phrenology, in connexion with the Study of Physiognomy.* By G. SPURZHEIM, M.D. &c. *Part I. Characters.* With thirty-four Plates.—London, 1826.

THIS is a very *pretty* book, exceedingly well fitted for the drawing-room, where it may be useful in promoting conversation when it begins to flag. Young ladies, of phrenological propensities, may have an opportunity of examining the "organs" of the most distinguished personages of history, "from Macedonia's madman to the Swede," whose high and singular forehead sufficiently evinces him to have been a "striking" character. We notice the work merely as being by the same author, and in some degree connected with the preceding.

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*An Exposition of the State of the Medical Profession in the British Dominions; and of the Injurious Effects of the Monopoly, by Usurpation, of the Royal College of Physicians in London.*—8vo. pp. 373. London: Longman and Co. 1826.

THE object of this work is to prove that all the abuses and evils in the present state of medical practice, are solely to be attributed to the Royal College of Physicians in London.

Reform, indeed, is the order of the day : physicians, surgeons, and apothecaries, are severally protesting against the monopolies of their respective corporations. Into these disputes we have not entered, and mean not to enter; firmly persuaded that, in the present state of excitement, public feeling requires no additional stimulus, and that these, like other *fermentations*, will end in effecting purification to a greater or less extent; while the feculencies which caused the turmoil, will sink to their natural level, as soon as the process is completed.

The volume before us contains references to every point of interest, and to many things of no interest whatever, connected with the history of the College; and it would appear, from the evidence it affords, that jealousies and discontents, similar to those which have brought the present "Exposition" to light, have very frequently given occasion to similar productions, without any beneficial results; and we are inclined to think the similarity will hold good in this respect also. The documents alluded to are very numerous, and to the general reader totally destitute of interest, consisting principally of cases, decisions, and questions which have been at issue between the licentiates, surgeons, and apothecaries, on the one hand, and the fellows on the other.

According to our author, the sole cause of all the evils in medicine is the existence of the College of Physicians,—the *unicum remedium*, its abolition. Such an event is a mere chimera. Even the members of the College of Surgeons begin to perceive that they cannot abrogate a royal charter by making speeches, and content themselves with the more rational attempt to enforce the privileges granted them by the very deed they would have annulled.

We repeat, however, that it is not our intention to enter upon these subjects; and the only part of this volume which we think of sufficient interest for quotation, relates to the relative proportion of the members of the different branches of the profession in London, as compared to Paris.

"According to printed official lists, there are this year (1825,) forty-five fellows, two candidates, three inceptor candidates, and 124 licentiates, who practise in London and seven miles round: in all, 174 physicians, to supply 1,200,000 inhabitants\* with medical assistance, or one to every 7000!

"Upon similar authority, it appears that, of about 5,650 members of the College of Surgeons in London, in 1825, upwards of 800, or one in seven, practise in the metropolis. To this number, for the reasons which shall be assigned in the next paragraph, 200

\* "The real number is computed to be nearer a million and a half; but we wish to under-rate rather than over-rate."

may be added; being in all 1000, or at the rate of one surgeon to every 1,200 inhabitants.\*

"The printed list of the Society of Apothecaries in London, in 1825, contains about 475 members, of whom not quite 300 reside in the metropolis and seven miles round. But, for the following reasons, this must be considered but as a very small proportion of all the apothecaries exercising their profession in the metropolis:—1. Upwards of a century ago, their number exceeded a thousand. 2. By the terms of the Acts of Parliament which have recently been passed respecting apothecaries, all those who were exercising the profession in London, previous to 1815, without having been incorporated, or undergone examination, were allowed to continue their functions. This description of persons is very numerous, and their names are not inserted in the list of the Society. 3. All the medical officers of his Majesty's army and navy, and of the East-India Company's service, are entitled to practise as surgeons and apothecaries in any part of the British dominions. Many of them avail themselves of this privilege by settling in the metropolis, and their names are not to be found in any list. We are then, probably, much within the mark, when we estimate the whole number of apothecaries in London, derived from all of these sources, at 2000; being at the rate of one apothecary to every 600 inhabitants.

"Thus, in London, the physicians are to the surgeons as one to six; to the apothecaries, exclusive of the chemists and druggists, as one to twelve; to both united, as one to eighteen!

"The number of chemists and druggists in the metropolis, we estimate at about 300.

"In Paris there were, in 1822, 600 physicians; being, on a population of 800,000, in the proportion of one physician to 1,333 inhabitants, or five times greater than in London.

"The same year, there were in Paris 128 surgeons; being one to 6,250 inhabitants, or four-fifths less than in London.

"The number of apothecaries in Paris, in 1822, was 181; being one to 4000 inhabitants, or five-sixths less than in London.

"In Paris, then, the physicians are nearly five times as numerous as the surgeons, more than three times as numerous as the apothecaries, and twice as numerous as both.

"Thus, the ratio which the physicians of Paris bear to its surgeons and apothecaries united, is to the ratio which the physicians of London bear to its surgeons and apothecaries united, as *thirty-six to one!*

"Consequently, if in Paris the three branches of the profession bear a due proportion to the demands of the inhabitants for medical, surgical, and pharmaceutical aid, and if the relative

\* "We are assured that the surgeons in London amount to 1,500; but, not having the immediate means of an accurate estimate, we choose to adhere to the lesser number, which will sufficiently justify our conclusions."

demands of the inhabitants of both capitals for the aid of these several branches be similar, the actual excess of surgeons and apothecaries over physicians in London is as thirty-six to one. This is, in fact, the case; and the excess of surgeons and apothecaries beyond the due proportion of these branches has been produced by the necessity of procuring medical aid from other than the ordinary sources, occasioned by the undue limitation of physicians under the College monopoly.

"Taking the three branches of the medical profession in Paris, and supposing the distribution of them in that capital to be the proper standard,—viz. 600 physicians, 128 surgeons, and 181 apothecaries,—they are united about 900, or at the rate of one to every 900 inhabitants; whilst in London, if the computation of 174 physicians, 1000 surgeons, 2000 apothecaries, and 300 chemists and druggists, be correct, the total number is 3,474, or at the rate of one to every 345 inhabitants. In Paris, then, under a due distribution of the three branches, the expense of maintaining each individual engaged in the profession is divided among nine hundred persons, whilst in London it is shared among 345; the actual expense to each inhabitant of the latter being nearly treble the expense to each inhabitant of the former city." (P. 6.)

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*Principles of Dental Surgery: exhibiting a new Method of Treating the Diseases of the Teeth and Gums, especially calculated to promote their Health and Beauty; accompanied by a general View of the present State of Dental Surgery, with occasional References to the more prevalent Abuses of the Art. In two Parts.* By LEONARD KOECKER, Surgeon-Dentist, Doctor in Medicine and Surgery; Member of the Medical and Linnæan Societies, and of the Academy of Natural Science of Philadelphia, &c. &c.—8vo. pp. 445. London: Thos. and George Underwood. 1826.

To have a work extending to 445 pages on the Diseases of the Teeth, is a sign that there are some professing the art of the dentist who are determined not to be behind their brethren in other departments of surgery. In this country, those who select particular branches are always looked upon with some degree of suspicion; and assuredly there is more quackery among the oculists, aurists, and dentists, (not to mention chiropodists,) than among those who practise medicine or surgery *generally*. Of late years, dentists have sprung up in every corner,—which may account for so many people having bad teeth: at least, we are fully convinced that there is no department of surgery in which injudicious interference so often takes place, or gives rise to more inconvenience and suffering.

The author of the work before us is a German, who practised for many years in Philadelphia; and, in perusing his book, it is but fair to keep in mind that he is a foreigner, not perfectly acquainted with our language or our usages; and we would, moreover, recommend to our dentists to forgive the unceremonious manner in which their pretensions are treated: the rather, as we believe the censures bestowed upon them to be in general deserved. The volume is one, indeed, from which those interested in this branch of the art will derive much information, and shows Mr. Кoecker to be a man of good medical education, as well as of considerable research.

We would express a favourable opinion of the work, but by no means without qualification; for there are many points of which we cannot judge, not possessing sufficient practical acquaintance with this department of the healing art. We can perceive, too, that there is occasional repetition, and that there are too many cases minutely detailed. Here and there we meet with passages which excite a smile. For example, the author strongly recommends the operation of extracting teeth, which, however, he at the same time regards as so unpleasant to the *operator*, that, "had Peter the Great himself been a professional dentist, he is strongly inclined to think that his sanguinary passion for the pastime of extracting teeth would have been soon extinct." Whatever the Czar might have done in that capacity, Mr. Koecker has entered into the subject very fully and minutely, treating even "of the moral means subservient to the due performance of the operation of extracting teeth." In this chapter he points out, with good sense, the impropriety of ever having recourse either to force or deception in the cases of children.

In the course of the work the following subjects are discussed:—

1st. Of the natural history of the teeth and their relative parts: that is, of the gradual formation, and various structures and functions, at different periods of life, of the teeth, the gums, the sockets, the periosteum, and jaw-bones, in their healthy state.

2d. Of the different diseases to which the teeth and their relative parts are subjected; their symptoms, together with their remote as well as proximate causes, at the different periods and stages of their formation and structure.

3d. Of the connexions, sympathies, and influences of the teeth, the gums, the sockets, the periosteum, and the maxillary bones, generally and individually, one upon another, in

their sound and morbid state; and particularly those of the first set upon the permanent teeth.

4th. Of the influences and effects of those parts in their healthy and diseased states, as well as of those of the whole constitution when in health, or when labouring under any general or local disorder upon the teeth, and the other parts immediately connected with them, at different periods of their formation and structure.

5th. Of the various medical and surgical remedies which the art affords; their judicious exhibition; and the opposite effects produced, as well immediately as permanently, by the application of skilful or improper treatment.

6th. Of the surgical apparatus and mechanical means for the proper application of the above remedies and operations in dental surgery, added to a general scientific knowledge of mechanism, and the various collateral mechanical arts intimately connected with its practice.

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## COLLECTANEA.

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*Floriferus, ut apes, in saltibus omnia libant,  
Omnia nos, iidem, depascimur aurea dicta.*

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### PATHOLOGY.

*Communication of Hydrophobia.*—NUMEROUS experiments made by the Professor of Surgery of the great hospital of Florence, (M. BETTY), and which are published in the Memoirs of the Imperial and Royal Academy, establish the result that sheep, and other animals of the same species, cannot transmit the hydrophobia which has been communicated to them by a mad dog, even if they should themselves die of the disease; that the virus, which kills them, loses its contagious qualities in passing into these animals; that their saliva, or any other liquid or solid inoculated from them into others, produces no evident effect; and that it is the same if the flesh of those animals, who may have died rabid, is eaten by man,—it is quite harmless. These facts are stated to tranquillise the minds of those who, without being aware of it, may have touched any part of a rabid animal, or may have eaten of its flesh. (*Annali Universali*.)

*Phlebitis.*—A communication by M. GENDRIN, in a recent Number of the *Revue Medicale*, contains some observations on this subject.

Inflammation of veins is sometimes produced by the operation of phlebotomy, made with an instrument that is dirty, rusted, or



blunt. This inflammation always has its seat in the part of the vessel above the incision: it ascends often in a progressive manner, following the direction of the course of the blood, even in the larger trunks. Intense phlebitis has been produced by bleeding with a lancet impregnated with the vaccine virus. We have seen an inflammation of the cephalic vein, through its whole extent, come on under the following circumstances: The patient was very fat, the operator inexperienced; the opening of the vein was small, and the escape of the blood impeded by the subcutaneous fat. The operator rubbed the arm to assist the exit of the blood, and in doing so repeatedly ruffled the lips of the wound: the consequence was the formation of a small abscess at the part punctured, and, after a time, inflammation of the vein showed itself, and progressively extended to the trunk of the axillary. Serious symptoms came on, and there formed an abscess of three or four inches in extent in the course of the vessel, whose inflamed and dilated coats contained the product of the suppuration; but, what is remarkable, the phlebitis did not commence till after the subcutaneous abscess was formed at the bend of the arm, where the puncture was made.

If veins can thus inflame after the simple incision of phlebotomy, it is more likely to happen in more complicated and extensive operations on them, and it has been remarked after ligatures or sections of the venous trunks, for the cure of varices. Travers cites several such examples; Osiander and Meckel have seen inflammation of the umbilical veins, and, in consequence, of the vena portæ, caused by ligature on the umbilical cord.

We have dissected with care three subjects who died from the consequences of lithotomy: one had been cut by the high operation, the other two by the lateral. We found inflammation in all the abdominal veins, even up to the cava: the veins of the bladder and the hypogastric veins were inflamed, in two of the subjects on whom the lateral operation had been performed; in the third, the left hypogastric vein and the vena cava ascendens were inflamed; there existed also intense peritonitis; the two others offered traces of violent cystitis and enteritis, with slight pneumonia of the left side. We are convinced that persons operated on for the stone often sink from the spreading of inflammation to the veins; and, perhaps, also almost all who undergo severe operations, particularly amputations.\*

It is interesting to remark, that the phlebitis following wounds seldom shows itself till suppuration is established in the wound, as occurred in the case of the woman mentioned above, where the cephalic vein inflamed after an abscess had formed at the bend of the arm. This circumstance is still more curious as regards the etiology of inflammations; for it cannot be doubted, after the facts

\* See observations on a case of Inflammation of the Veins after Amputation, by Mr. GUTHRIE, in the Number of this Journal for July.

related by M. RIBES, in the third volume of the *Mémoires de la Société d'Emulation*, and in the eighth volume of the *Revue Médicale*, 1825, and after several other similar facts collected by different observers, that there takes place, by the small branches of the veins, an absorption of pus with which the edges of wounds become infiltrated, or which is deposited in abscesses. In the body of a man, forty-nine years old, who died from phlegmonous erysipelas, occupying all the fore part of the thigh and a part of the integuments of the abdomen, besides abscesses, containing pus and purulent matter, in the cellular tissue, we found pus, mixed with a reddish serosity, in the trunk of the internal saphena vein. It is remarked also, in persons dying of small-pox, that the venous branches coming from parts of the skin covered with confluent pustules, are generally filled with that fluid, and often inflamed. The inflammation of veins originating in diseased tissues, already remarked by Mr. TRAVERS, is now an attested fact: it does not constantly occur, but very frequently. Can the propagation of inflammation to the veins be attributed to the absorption of pus, by the minute branches of veins in the diseased tissues, as it is formed in the lips of the wound?

Inflammation of veins shows itself sometimes without any such causes as those now detailed; as in the abdominal, and particularly the hypogastric veins, in parturient women. It is known that some modern physicians have pretended to explain all puerperal œdemas by this cause. We can only attribute these examples of phlebitis to the singular disposition to inflame that gestation and childbirth leave in all the abdominal viscera; a disposition by which the frequency of peritonitis and enteritis in parturient women, has been sought to be explained. The inflammation of veins is in this case more readily imagined than that of the other abdominal organs, on account of the great change that takes place during gestation, and also during the delivery, in the circulation of blood in the veins of the uterus, fallopian tubes, and ovaries.

The veins which inflame most frequently, *cæteris paribus*, are those of the limbs, and particularly of the lower limbs; those of the pelvis may be reckoned next. There are few examples of phlebitis in the thorax, and still fewer in the brain: perhaps this may arise from the little attention generally given, in opening bodies, to the examination of the vessels. In calling attention to the small number of cases of cerebral phrenitis known, perhaps we may induce practitioners to examine the vessels, in opening the bodies of individuals who have died of diseases of the brain, and verify the inductions that the few facts known allow us to draw.

M. RIBES has related, in the *Revue Médicale*, July 1825, a case of inflammation of the superior longitudinal sinus, in which he discovered, on opening the body, a considerable thickening of the coats of the venous canal, where the inner surface was lined with a false membrane. The superior cerebral veins, which opened

into this sinus, were varicose; a part of this vessel, as well as the left lateral sinus, was obliterated by a fibrous matter, very firm, and evidently organised; a cancerous tubercle existed in the centre of the right hemisphere. This phlebitis was evidently chronic, and did not appear to us to have any connexion with the cancerous disease of the right hemisphere. The interruption of the circulation in the sinus and veins which terminate in it, was not in this case followed by hemorrhagy; but we must remark, that this obstruction of the vessels was here evidently chronic, and it well demonstrated that disorders, which are not quickly formed, are not followed by the same effects as those where the progress is rapid. We must consider as the result of that obstruction the considerable dilatation of the longitudinal sinus, as well as the varicose dilatation of one of the veins which opened into the sinus. This dilatation was so little recent, that M. Ribes remarked on the left parietal bone a deep groove which received this vein, and a remarkable augmentation of the depth and breadth of the longitudinal groove in the back part of the cranium.

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PRACTICAL MEDICINE.

*On the Employment of Camphor in Acute and Chronic Rheumatism.*—It must be interesting (says M. DUPASQUIER,) to learn that there is a method which is almost sure to stop the progress of acute rheumatism, a disease which is generally much prolonged, in spite of the employment of the most rational means. This becomes still more interesting at present, when the "medicine expectante" in diseases, the nature of which is well known, has fallen into just discredit, and when it is acknowledged how dangerous it is, in such a case, to wait for the efforts of an imaginary "vis medicatrix." This method, which consists in applying camphor chiefly under the form of vapour, although little known, is not new: Dr. AMABLE CHEZE, at Chalons sur Saone, appears to have been the inventor of it. This physician had already employed camphor with success in tetanus, and, thinking he saw an analogy between it and rheumatism, was induced to try it in the latter. In his Thesis (1808), "*Propositions sur le Rheumatism aigu et chronique, &c.*," Dr. Cheze sets forth his ideas on the employment of camphor in rheumatism; since then, however, it has scarcely been noticed. M. Dupasquier has tried it in several cases, and constantly with success after the first or second fumigation. He cites five cases where purgatives were decidedly useful: the second of them is interesting, not only from the good effects of the remedy, but by affording a contrast to the ordinary mode of treatment.

M. G—, aged forty-four, of sanguineo-nervous temperament, subject to long and violent attacks of acute rheumatism, has felt, since the beginning of June 1825, some stiffness in the joints of

the limbs, and in the muscles of the back part of the neck. On the 5th of the same month he went into the country; while the weather was cold and rainy, he sat down on a wet stone, and walked on the moist grass. In the evening he drank, on going to bed, a slightly diaphoretic infusion; but, in spite of this precaution, the next day (June 6th) he was seized with violent pains in the hip-joint and knee of the right side. To these pains were added the following symptoms:—frequent pulse, but neither strong nor full; tongue loaded; severe headache; constant diaphoresis. A camphor fumigation was ordered, during which the perspiration was very slight. Low diet, and infusion of balm for drink. He passed a bad night.

7th.—Much fever: the pains are very acute, and in the same joints; the least movement makes the patient cry out.—Another fumigation: this was stronger of camphor than the last, and produced an abundant flow of perspiration. The pains ceased instantly. The patient, covered with a blanket, was put to bed, and continued to perspire copiously for half an hour: he was quiet for some hours, and slept a little. The pains returned in the afternoon, but were trifling: another fumigation dispelled them. In the night they suddenly returned, and fixed themselves in all the joints of the left leg.

8th.—The patient has suffered much. Fumigated: was much relieved, and could even walk to his bed. He slept some hours, and again used the camphor vapour in the afternoon, and passed an excellent night.

9th.—All febrile symptoms diminished; pains almost gone.—Let him fumigate twice; low diet and barley-water. Passed a good night.

10th.—More fever and more pain; bowels open. Two fumigations, and diet, &c. as yesterday.

11th.—Quite free from pain and fever. Two fumigations.

12th.—Convalescent. He went on daily improving till quite well; but continued the fumigations as a precautionary measure.

This gentleman, the subject of the foregoing case, had been treated the year before, for a similar attack of rheumatism, on the antiphlogistic plan. Repeated applications of leeches on all the diseased joints only temporarily relieved the pain, without removing the disease, which, in spite of every means, lasted more than two months, and was only cured, during the third month, by employing aromatic baths, blisters, purgatives, and afterwards the mineral waters of Aix.

How does camphor act in thus stopping the progress of rheumatism? Is it from its diaphoretic power only? or is it by a particular sedative action that it instantly calms the pains? or, rather, may it not be by an union of these two effects that its remarkable energy is to be explained? M. Dupasquier thinks that this medicine destroys the inflammatory state by a powerful revulsion,—that is, by producing perspiration; and afterwards by its absorption

through the skin and pulmonary organs, by acting on the general and first cause of the disease as a sedative.

To exemplify the power of camphor as a sedative, M. D., in a note, states that a patient who had employed with success camphor fumigations for chronic rheumatism, had shortly after severe pains in the left shoulder-joint. As he had great repugnance to renew the fumigations, a little bag of camphor was put under the armpit of the side affected: the absorption was rapid; in half an hour he felt a kind of numbness in the joint, and the pain soon left it. He frequently renewed this experiment, with the same success. With regard to the manner of administering the camphor in rheumatism, it may be given internally or in frictions, or by putting it immediately in contact with the skin, either in powder or vapour; and this last method, uniting the two modes of action of the medicine, is greatly to be preferred. M. Dupasquier has always used it in vapour only, although he thinks there may be cases where it might be advantageously used internally at the same time. There are circumstances, too, that would indicate general bleeding before using the fumigations. The best mode of applying the fumigations, is by an apparatus invented by M. RAPAU, consisting of a particular kind of box. Where patients cannot afford this, however, they may be placed on a chair, over a small furnace, with a large blanket thrown round them, reaching to the ground, and drawn close round the neck: a tea-spoonful of powdered camphor is thrown every five minutes on a metal plate covering the furnace. The medicine rapidly volatilises, and the parts of the body with which it comes in contact are speedily covered with sweat. The fumigation may be continued three-quarters of an hour, or an hour. When the operation is finished, the patient is wrapped up in the blanket, and put to bed, where he will continue to perspire for some hours. Half an ounce of camphor is usually enough for a fumigation, but it may be carried to a much greater extent without inconvenience: one patient used four ounces at once without any unpleasant accident. When patients cannot be moved out of bed, the bed-clothes may be raised around them, and the camphor volatilised by means of a warming-pan moved up and down in the bed. While undergoing fumigation, the patient should drink some mildly diaphoretic drink. The number of fumigations in the day must depend on the violence of the pains, and strength of the patient: when he is strong, and suffering much, they may be used three and four times daily. It is always necessary to continue their use for at least a week after all pain has disappeared. (*Revue Médicale.*)

*Case of Rheumatism of the Heart, treated by Acupuncture.* By M. PEYRON.—A woman, eighteen years of age, of good constitution, and of nervous temperament, having lived for some years in a very damp house, began to feel pains in her arms, and afterwards in her legs: they were not fixed, and were at first considered

as *growing* pains, but they soon shewed the true nature of the disease. Various means were unsuccessfully employed while she remained in the same house, but, as soon as she had quitted it, the pains diminished in intensity, and then disappeared. She was next attacked with severe pain in the region of the heart. This pain was not continued, but frequently recurred, not only from changes of weather, but also from any lively emotion, and sometimes remained for days: it was accompanied with palpitations, which daily became stronger, and at times was accompanied by contraction of all the muscles, so that it was impossible to move any of her limbs. This attack came suddenly, without the patient being previously sensible of any pain. Sometimes it lasted from a quarter of an hour to two, three, or even nine hours: it was often accompanied with loquacity, a kind of extatic delirium, of which the patient recollected nothing. She then had excessive pain at her heart, which beat violently. It may be remarked that, some years before, the patient having lost her mother, had similar attacks, but without pain or palpitation. The disease went on increasing. Frequent bleedings, leeches to the precordial region, left leg, neck, and left arm, were used. Every time that the pain came on, baths, stimulating pediluvia, alvine injections, were tried, but without effect. It may be remarked, that leeches always increased her sufferings.

She had been in this way four years when M. Peyron saw her. He discovered, by mediate auscultation, that the beating of the heart was stronger than natural; the pain was referred to the space between the cartilages of the fifth and eighth ribs of the left side; the pulse was frequent, full, and intermittent.

After carefully examining her symptoms, M. Peyron came to the conclusion that it was a case of rheumatism of the heart; and, in that persuasion, acupuncture was proposed and acceded to by the patient. The girl being placed on her back, leaning to the right side, the first needle, thirteen lines in length, was introduced with a rotatory motion in the space that separates the cartilages of the fifth and sixth ribs, and in a line nearly corresponding to the middle of the cartilage of this last; it was directed towards the heart, going obliquely from below upwards, and from right to left, but without reaching that organ. The patient experienced no pain during the introduction, but, when it was finished, she stretched out her limbs, contracting them with violence during some minutes, without uttering a word, and soon after fell into a delirium similar to that described as resulting from animal magnetism. She *said* she saw distinctly any object, although her eyes were shut, but she always was deceived when she attempted to tell the number of fingers held up before her. She spoke with astonishing volubility, and answered questions in rather an extravagant manner; and, what is remarkable, could not suffer to be touched. This delirium lasted ten minutes: she awoke as from a deep sleep, was fatigued, and did not recollect any thing she had said; she

felt severe pain.—A second needle, of fifteen lines, was then introduced in the same intercostal space, corresponding to the sixth rib. Another attack came on : the loquacity was still greater ; she felt no pain, and called out for another needle.—A third acupuncture was made in the same intercostal space, between the two needles already applied, at the spot where the patient complained most of pain, and where the beating of the heart was most sensible. The needle was eighteen lines in length, and was directed from the upper edge of the cartilage of the sixth rib, from above downwards ; it pierced the pericardium, and reached, without doubt, the point of the heart. The sensations it caused were different ; the patient felt a shiver, and the attack soon ceased. This sensation, the length of the needle, and its movements, which followed exactly all those of the heart, sufficiently prove that it was in direct communication with that organ ; and what may add to the conviction is, that the needle was agitated before the intercostal space into which it was introduced had received the impulse of the heart.

From this time the patient felt no more of her accustomed pain ; what she did experience being quite different.

The needles remained nearly forty-eight hours in situ. The puncture of the one last introduced excited much inconvenience : it was the only one that gave any drops of blood ; these flowed rapidly on its extraction, which was very painful. This needle was most oxydised. The patient afterwards felt only a sharp pain at the situation of the punctures, which soon went off, and the rheumatic pain quite disappeared. (*Ibid.*)

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#### SURGERY.

*Suture in Wounds of the Bladder.*—Report of MM. LISFRANC, MANJANT, and AMUSAT, on a Memoir of M. PINEL GRAND-CHAMP, entitled “Experiments on Animals, tending to establish the advantages of the Suture to obtain the Reunion of Wounds of the Bladder, and prevent Extravasations of Urine:”—

These experiments may cause the preference to be given to the high operation for lithotomy. The author has, with success, practised sewing up the bladder, after wounding that organ, in dogs, cats, hares, &c.; although in them the wound has always been situated in the most dependent part of the bladder, and of course the urine always in contact with it ; and although the perineum, from its connexions, was cut in two places, which would not happen in man.

In a first series of experiments on twenty-one dogs, twelve were entirely cured, four were healing, and five had perished. In a second series, nine out of ten were cured. In a third, three of seven only were cured ; but in this instance, to render the experiments as nearly alike as possible to what would occur in men about to undergo an operation for the stone, he had introduced into the

bladders the fragments of human calculi, pieces of lead, and lumps of gelatine. Now, in two of the dogs, the pieces of lead fixed themselves in the urethra, shut up that canal, and caused accumulation of urine in the bladder, and extravasation of urine in two others. The fragments of the calculi interposed themselves between the points of the suture, and in this way also caused extravasation. The kind of suture used was the Glover's suture, (*la suture du pelletier.*)

M. P. Grandchamp thinks that the employment of this suture would be very applicable in the high operation for the stone.

The reporters have killed several dogs operated on by M. Pinel, in order to discover the state of the parts.

1st. In three dogs operated on within two months, they found perfect cicatrices; one of them a little puckered on the interior; in one also a piece of intestine was adhering to the cicatrix.

2d. On two others, the thread, which had not been removed, formed the nucleus of a calculus; the bladder was thickened and inflamed, and the cicatrix solid.

3d. In one operated on fifteen days, and where the suture had been removed on the third day, the cicatrix was almost complete: the urine passed by the penis.

4th. In one operated on fifteen days, the bladder had adhered to the epiploon; the cicatrix was incomplete, and the urine escaped by the wound.

5th. In another operated on two months, into which a calculus had been introduced, there was a perfect cicatrix in the bladder; but the mucous membrane was red, swollen, and like a sponge at the point where the calculus had rested, and which had increased to three times its original size.

6th. In another operated on fifteen days, the wound in the bladder was cicatrised two-thirds of its extent, and showed a little suppuration: the urine was frothy, and passed by the urethra.

The reporters conclude with M. Pinel, first, that the substance with which the suture is made must be removed, as, without this precaution, it would prove a nucleus for a future calculus; secondly, that, even should the wound of the bladder not be quite cicatrised when the ligature is withdrawn, the bladder contracts adhesions with the parietes of the abdomen, which hinders extravasation; that, in man, the edges of the wound of the abdomen might be kept open, so as to remove the ligature a little later. They conclude, that the experiments of M. Pinel authorise the belief that the process described by that surgeon might be applicable to man.

*Strictures of the Urethra.*—An attentive observation of what occurs in patients affected with this complaint, when they make water, has led Professor CITTABINI to an ingenious method of introducing bougies. "When patients with strictures wish to make water, the bladder forcibly expels the urine, which flows to



the obstacle: stopped here, it filters, in small quantity at first, through the straitened canal; but it appears that this filtration soon produces a momentary dilatation, since the water comes at times in a full jet, even in patients where no kind of bougie could be introduced." This dilatation from within outwards has often been imitated by the Professor, with the happiest effect, by using injections, and introducing the bougie without permitting the injected fluid to escape.

*Extraction of Calculus from the Female Bladder, by Dilatation of the Urethra.* By Dr. HAMILTON.—In November 1823, Mrs. F——, ætatis fifty-five, a stout hale woman from Alloa, presented herself to the New-Town Dispensary, labouring under symptoms of stone. The complaint had existed for six or eight years. Having, by sounding, satisfied myself of the existence of calculus, I informed her that the only relief which could be afforded was by extraction; which would probably be effected by dilatation, without any cutting. She that evening took some opening medicine, and next day, at three P.M., I introduced Mr. Weiss's dilator of the female urethra, and turned the screw up two teeth; so dilating the blades to the extent of one-fourth of an inch. I returned in an hour, and found my patient complaining much of the pain that was produced. A few drops of blood were oozing from the meatus. I turned the screw another point, with great increase of suffering. An opiate was administered. In an hour and a half I again returned; found the oozing of blood more considerable, and the pain more intolerable. It required much persuasion before I was permitted again to turn the screw, and separate the bladder to the fourth division marked on the scale. At two several intervals of an hour and a half, I raised it two other points in the scale, and thus brought the dilation to equal three-fourths of an inch. This, it will be observed, was effected with much severe suffering, in six hours.

At eleven P.M. I withdrew the dilator, and could of course easily introduce the forceps. With a pair of strong polypus forceps I could grasp the stone, but found the hold I maintained was not sufficient. The stone slipped in my endeavours to extract. With a lithotomy forceps, of a small size, I found that the blades were so large and thick that I could obtain no firm grasp; they only rasped along its partially embraced surface.

After satisfying myself that the dilatation was insufficient, I again introduced the instrument, and raised the screw to the seventh point in the scale. A full opiate was administered, and a respite held out, for sleep, during the night.

At seven next morning it was found she had suffered much during a sleepless night. The parts were exquisitely tender, and bleeding a little. The screw was raised another point; and again another, to the ninth, in an hour afterwards. This brought the dilatation to one inch and one-eighth.

I was now convinced that the patience of my patient was completely exhausted. Often had she expressed a wish that the process had never been commenced, and a strong conviction that it was more painful than any cutting. Being, therefore, fully persuaded that she would no longer submit to the further use of the instrument, and solicitous that all her suffering should not be useless, I provided myself with a probe-pointed bistoury, in case the dilatation was not even now sufficient; and at nine A.M. determined, with the assistance of my friend Dr. Molison, to do all in my power for her relief.

A firm hold with the lithotomy forceps could now be procured. The position of the stone could be adjusted in the most favourable manner, and all the force that was regarded safe could be steadily applied. This was done for four or five minutes, but the urethra would not yield. After the dilatation and the force had been carried to what I conceived the extreme limit, I introduced the bistoury, and cut at the angle formed by the junction of the bladder and urethra, in a direction upwards and outwards. The bridle, which had obstructed the progress of the stone, was thus divided, and it was now easily extracted.

The incision must have been to the most trifling extent, as there was no hemorrhage, and the patient was never sensible of any incontinence of urine. Another opiate was administered. The patient lay in bed for the most of the day, and made water at regular intervals. She had no unpleasant symptom whatever after the operation; next day was walking about the house, and in a few days returned home in perfect health. She came to town a few months ago, and called to inform me she was completely cured.

The stone weighed precisely one ounce: its long circumference measures four and a half inches; its short, one inch and a quarter. (*Med.-Chirurgical Transactions of Edinburgh*, vol. ii.)

*Case of Extraction of Calculus from the Female Bladder.* By Dr. RAMSAY.—About two weeks were spent, with very partial success, in dilating the urethra by means of sponge tents, which were generally expelled in a few hours after their introduction; but they sometimes remained during the course of a night, though not without much inconvenience and distress. The common polypus forceps, and afterwards a better instrument, (commonly used for extracting balls,) which Dr. Thomson was so obliging as to send me, were tried with better effect. But in Weiss's dilator I found an instrument well suited to its purpose, and succeeded in expanding the urethra more and more every day, from twenty to thirty minutes at a time, until, in the course of ten days, I could easily introduce the forefinger within the urethra, and examine with sufficient accuracy the figure, size, and surface of the calculus.

Prior to extraction, I introduced the dilator, in the presence of Mr. Crichton and Dr. Nimmo, and turned the screw very gradually until, in the course of about thirty minutes, I had opened the

blades sufficiently to admit the flat side of the forceps within them. The dilator was then withdrawn. I fortunately seized the stone in the best manner for its extraction, which was accomplished with some difficulty, and a good deal of pain to the patient. The chief resistance was found at the orifice of the urethra, and was at first so great as to render it doubtful how far the bistoury might not have been advisable; but, as this might have defeated the great object in view, I persisted a little longer, and effected the extraction without its aid.

From the size of the stone, (which we found to be five inches and a quarter in its long circumference, and three and a half inches in the short, and weighing seven and a half drachms,) I apprehend it would have been impossible to have extracted it in this way, without rupturing the urethra, had not the dilatation been effected in a very *gradual* but *decided* manner for some weeks previous to the operation.

A good deal of general irritation prevailed in the system for a few days after the removal of the stone, with pain and swelling of the parts; but these symptoms soon gave way,—not, however, without considerable mucous and puriform discharge from the vagina, with some membranous sloughs, which seemed to give considerable uneasiness by obstructing the free passage of urine.

The bladder and urethra very quickly resumed their natural functions. The power of retention, which from the first was never lost, has ever since remained perfect; and all the distressing symptoms depending upon stone in the bladder, entirely left her after the operation. (*Ibid.*)

*Chlorate of Lime in Burns.*—M. LISFRANC has been for some time in the habit of applying this active substance in burns, and with great success. Several cases are published in the account of the Clinique of La Pitié, where the application of the substance was made immediately after the accident had occurred; occasionally, emollient cataplasms were premised. M. L. at first dreaded the production of too violent an inflammation from its direct application; but accident having shown him the contrary in a very desperate case that occurred, he now has recourse to it immediately. This chlorate of lime ought to be in strength equal to 30 of M. GAY LUSSAC's chlorometre. When used, the dressing of the wound is made in this way: the part burnt is to be covered with lint, with holes in it, and spread with cerate; above this is put a great quantity of charpie, wet with the solution, and this is to be kept constantly moistened with it. M. Lisfranc has great confidence in this application.

# INTELLIGENCE.

## MONTHLY REPORT OF PREVALENT DISEASES.

CASES of diarrhoea, which were very frequent during the last three months, began to disappear in proportion as the heat of the weather abated, and few cases are now to be met with. Continued Fevers have, however, become so frequent as almost to constitute an epidemic, and in numerous instances the disease has assumed a severe form. The principal circumstance worthy of notice is the occurrence of gangrene or sloughing in a considerable proportion of cases. We have seen this in the upper part of the air-passages, in the posterior fauces and pharynx, and in the bowels; while in one instance a large carbuncle formed on the face. It is almost unnecessary to observe, that these occurrences have been extremely unfavourable: in most cases, indeed, their existence has only been discovered by post-mortem examination. The comparatively greater prevalence of continued fever at present than during the preceding part of the season, cannot be viewed without some anxiety, when taken in conjunction with the epidemic which has made its appearance in Dublin.

The only other change in the prevailing diseases, which is of sufficient importance to merit attention, is the increasing number of chronic rheumatic affections; the weather having been wet during a considerable portion of the present month, and the nights cold.

The frequency of Scarlatina and Measles is on the decrease; but we have seen a considerable number of cases of Small-pox.

September 25th.

*Royal College of Surgeons in London.—Bye-Law of the College, and Standing Orders of the Court of Examiners, relative to the age and professional education of Candidates for the Diploma.*

*Bye-Law.* Sect. xvi. § 1.—No person under twenty-two years of age shall be admitted a member of the College.

*Standing Orders.*—1. The only schools of anatomy and surgery recognised by the Court are, London, Dublin, Edinburgh, Glasgow, and Aberdeen.

2. Certificates of attendance upon the surgical practice of an hospital will not be received by the Court, unless such hospital be in one of the above recognised schools, and shall contain on an average 100 patients.

3. The Court will, however, receive, as testimonials of education, certificates of attendance on provincial hospitals, containing respectively 100 patients; provided a student shall have previously attended two courses of anatomical lectures, and two courses of dissections, in any of the recognised schools of anatomy. But the Court require that the term of attendance on such provincial hospitals shall be of twice the duration of that required at hospitals in any of the recognised schools of anatomy.

Candidates will, conformably to the above bye-law and standing orders, be required respectively to produce, prior to examination, certificates—

1. Of being twenty-two years of age.

2. Of having been engaged six years, at least, in the acquisition of professional knowledge.

3. Of having regularly attended three winter courses, at least, of lectures on anatomy and physiology, delivered at subsequent periods; and also one winter course, at least, of lectures on surgery.

4. Of having performed dissections during two or more subsequent winter courses.

5. And of having diligently attended, during the term of at least one year, the surgical practice of one of the following hospitals:—St. Bartholomew's, St. Thomas's, the Westminster, Guy's, St. George's, the London, and the Middlesex, in London; the Richmond, Steeven's, and the Meath, in Dublin; the Royal Infirmary, in Edinburgh; the Royal Infirmary, in Glasgow; or the Royal Infirmary, in Aberdeen: or of twice that term in any of the provincial hospitals, conformably to the above standing order, No. 3.

Such certificate must also express the dates of the commencement and of the termination of attendance on each course of lectures, and of dissections; and the

periods of the commencement and of the termination of attendance on hospital practice,

The required certificates must be delivered at the College ten days, at least, prior to the day on which candidates shall, respectively, be desirous of admission to examination.

Candidates, under the following circumstances, and of the required age, are also admissible to examination:—Members of any of the legally-constituted Colleges of Surgeons in the United Kingdom; graduates in medicine of any of the Universities of the United Kingdom, who shall have performed two or more courses of dissection, as above specified, No. 4; and who shall have regularly attended the surgical practice of one of the hospitals, as above described, No. 5.

(By order,)

EDMUND BELFOUR, Sec.

*Lincoln's Inn-fields; Sept. 8th, 1826.*

*Medical Benevolent Society.*—This Society was established in the year 1816, for the purpose of affording relief to such of its members “as are in distressed circumstances, from mental or bodily infirmity, or who, from other causes, shall be considered as requiring and deserving of assistance.

By a rule of the Society, no claim can be made on its fund till “after the expiration of ten years from the date of its establishment, when, but not sooner, relief may be granted.”

The period, therefore, is now arrived when claims may be made; and the directors are anxious, as speedily and as effectually as possible, to exercise the discretionary power vested in them; but they have the mortification to find that the fund of the Society is very small,\* whilst they have strong reasons for believing that the claims upon it will be numerous.

Instances of extreme necessity, to which medical practitioners of every rank have been reduced, are frequent and notorious. From the Reports of “The Society for the Benefit of the Widows and Orphans of Medical Men in London and its Vicinity,” it appears that *one in four* of the families of its deceased members has received relief from that fund.

An attempt to explain the causes of the indigence of so many members of an useful and honourable profession, would be here irrelevant. It is, however, a melancholy fact, that such indigence does exist; which might probably have been prevented or mitigated by the establishment and liberal encouragement of institutions similar to this.

Although the Medical Benevolent Society has been honoured by a munificent and approving donation from his Majesty,—by the illustrious patronage of H. R. H. the Duke of Sussex,—by the benefactions of several noble and eminent persons,—and by the countenance of the most distinguished of the profession in the metropolis, still its fund is wholly inadequate to the attainment of its objects; and, although all medical men, throughout England and Wales, may be admitted amongst its members, yet the present number of them is in the proportion only of 250 to upwards of 12,000!

That a Society, constituted for a purpose so laudable, and upon principles so generally approved, and acted upon by other learned and scientific professions, should have been established for so many years, and yet have been so little encouraged, can only be accounted for on the supposition that its real objects and advantages have been either but partially known, or wholly misunderstood.

The directors of the Medical Benevolent Society, fully convinced of its utility, respectfully and earnestly, by this address, recommend it to the attention of the profession at large; and they trust that those who are raised above the contingencies of a medical life will, from motives of benevolence, afford it their patronage; and that the less affluent will, from motives of prudence, spare the trifling sum\* required from their present incomes, in order to insure to themselves and to their families the means of assistance in the time of adversity.

\* The capital is 2600*l.* sterling; the annual aggregate income is about 280*l.*

† The terms of admission are, one guinea on admission, and one guinea per annum in advance; or twenty guineas at one payment, constituting a life subscriber.

*Attendance on Lectures on Midwifery.*—We are sorry to find that the notice in our last Number on this subject was premature; the proposal to require certificates of attendance on midwifery lectures, of candidates for a licence to practise as Apothecaries, not having passed into a resolution. We can only say that those, a great part of whose business consists in the practice of midwifery, ought to give proof of their being properly qualified in this, as well as in the other departments of their profession. We would add, that the Apothecary's Company has thus lost an opportunity of showing their desire to improve still further the qualifications of those over whose education they have been appointed guardians, by a regulation salutary in itself, and which would have been approved of both by the profession and the community at large.

*Medical Education.*—We subjoin a list of the various Lectures about to commence, arranged according to subjects; from which it will be apparent, that, if the rising generation be deficient in any part of their education, it cannot be for want of a sufficient number of teachers.

Lectures will be delivered during the ensuing season, (or at least have been advertised,) on

*Anatomy, by*

Messrs. ABERNETHY and STANLEY, St. Bartholomew's Hospital, commencing at half-past two P.M. Monday, October 2d.

Messrs. BELL and MAYO, Anatomical Theatre, Great Windmill-street, at two P.M. Monday, October 2d.—Mr. HAWKINS, ditto, at one P.M. October 9th.

Mr. BENNETT, Little Dean-street, Soho, at eleven A.M. Tuesday, October 3d.

Mr. BROOKES, Anatomical Theatre, Blenheim-street, at twelve, October 2d.

Mr. CARPUE, Dean-street, Soho, at two P.M. Monday, October 2d.

Mr. DREMOTT, Theatre, Windmill-street, Golden-square, at two P.M. ditto.

Mr. GRAINGER, Theatre of Anatomy and Medicine, Webb-street, Borough, ditto, ditto.

Messrs. HEADINGTON and HARKNESS, London Hospital, at two P.M.

Messrs. GREEN and SOUTH, St. Thomas's Hospital, at two P.M. Monday, Oct. 2d.

Mr. KIERNAN, No. 38, Charterhouse-square, at eleven A.M. Monday, October 9th.

Messrs. MORGAN and B. COOPER, Guy's Hospital, at two P.M.

Mr. SLEIGH, Chapel-street, Grosvenor-square, at two P.M. Monday, October 2d.

Messrs. TYRRELL, QUAIN, and COULSON, Medical Theatre, No. 58, Aldersgate-street, at twelve, noon, ditto.

*On the Theory and Practice of Medicine, by*

Dr. AGER, Margaret-street, at nine A.M. Monday, October 2d.

Dr. ARMSTRONG, No. 1, Anatomical and Medical Theatre, Webb-street, Borough, at four P.M. Monday, October 2d.

—, No. 2, Theatre, Little Dean-street, Soho, at eight P.M. Tuesday, October 3d.

Dr. AYRE, Theatre of Anatomy and Medicine, Dean-street, Borough, four P.M. ditto.

Dr. BRIGHT, Guy's Hospital, at half-past nine, Monday, October 2d.

Drs. CHAMBERS and MACLEOD, Anatomical Theatre, Great Windmill-street, at nine A.M. Wednesday, October 4th.

Dr. CLUTTERBUCK, assisted by Dr. TWEEDIE, Theatre, 58, Aldersgate-street, at ten A.M. ditto.

Dr. COPLAND, No. 17, Great Pulteney-street, at eight A.M. Monday, October 2d.

Dr. GREGORY, No. 60, King-street, Golden-square, at nine A.M. October 4th.

Dr. HUE, St. Bartholomew's Hospital, at ten A.M. Tuesday, October 3d.

Dr. MILLIGAN, at the Theatre, Chapel-street, Grosvenor-square, at eight A.M. Tuesday, October 3d.

Dr. NUTTALL, at the Westminster Dispensary, Gerard-street, Soho, at eight A.M. Monday, October 2d.

Dr. RAMADGE, No. 1, at the Central Infirmary, Greville-street.

—, No. 2, Theatre, Little Windmill-street, at nine A.M. October 2d.

Dr. ROBINSON, London Hospital, at nine, Tuesday, October 3d.

Drs. SHEARMAN and SIGMOND, 28, Villiers-street, Strand, Monday, October 2d.

Sir G. TUTHILL, Cavendish-square, ditto ditto

Dr. WHITING, Surrey Dispensary, Union-street, Borough, at ten A.M. October 3d.

Drs. WILLIAMS and ELLIOTSON, St. Thomas's Hospital, at eleven A.M. October 3d.

*On Materia Medica, by*

Dr. ADDISON, Guy's Hospital, at seven P.M. Tuesday, October 3d.

Dr. BILLING, London Hospital, at half-past three, ditto.

Mr. JACKSON, No. 17, Webb-street, Maze Pond, at half-past six P.M. October 2d.

Dr. AGER,

Dr. BOOTT,

Dr. COPLAND,

Dr. GREGORY,

Dr. HUE and Mr. WHEELER,

Dr. MACLEOD,

Dr. MILLIGAN,

Dr. NUTTALL,

Dr. RAMADOE,

Dr. ROOTS,

Dr. SHEARMAN,

Dr. TWEEDIE,

} These Lectures are connected with the corresponding courses on Medicine, and for the most part are delivered on the same days, and during the hour immediately preceding the Medical Lecture.

*On Surgery, by*

Mr. ABERNETHY, St. Bartholomew's Hospital, at eight P.M. Monday, October 2d.

Mr. BACOT, Theatre of Anatomy and Medicine, Dean-street, Borough, at seven P.M. Tuesday, October 10th.

Messrs. BELL and SHAW, Middlesex Hospital, at seven P.M. Tuesday, October 3d.

Mr. BRODIE, Anatomical Theatre, Great Windmill-street, at seven P.M. October 2d.

Mr. GREEN, St. Thomas's Hospital, at eight P.M. Monday, October 2d.

Mr. GUTHRIE, Westminster Infirmary for Diseases of the Eye, Warwick-street, at half-past six P.M. October 3d.

Messrs. HEADINGTON and LUKE, London Hospital, at eight P.M. on Monday, October 2d.

Messrs. KEY and MORGAN, Guy's Hospital, at eight P.M. Tuesday, October 3d.

Messrs. LAWRENCE and WARDROP, Medical Theatre, No. 58, Aldersgate-street, at seven P.M. ditto.

*On Midwifery, by*

Dr. BLUNDELL, Guy's Hospital, at a quarter before eight A.M.

Mr. CHOLMONDELEY, General Dispensary, Aldersgate-street, at a quarter-past eight P.M. Tuesday, October 3d.

Dr. CONQUEST and Mr. BIRCH, St. Bartholomew's Hospital, at half-past six P.M. Wednesday, October 4th

Dr. DAVID D. DAVIS, Theatre, 58, Aldersgate-street, at half-past five P.M. Monday, October 2d.

\_\_\_\_\_, 29, George-street, Hanover-square, at half-past ten A.M. Tuesday, October 3d.

Dr. HENRY DAVIES, Theatre, Dean-street, Borough, at nine A.M. ditto.

\_\_\_\_\_, Westminster Infirmary for Diseases of the Eye, Warwick-street, at a quarter-past ten A.M. Monday, October 2d.

Dr. GOLDING, Villiers-street, Strand, ditto.

Dr. GRANVILLE, Westminster Dispensary, Gerrard-street, Soho.

Dr. HOPKINS, Theatre, Webb-street, Borough, at four P.M. Tuesday, October 3d.

Mr. JACKSON, No. 17, Webb-street, Maze Pond, at half-past six P.M. ditto.

Mr. JEWEL, Middlesex Infirmary, Great Pulteney-street, Golden-square, at eight P.M. October 11th.

Dr. LEY, Middlesex Hospital, at nine A.M. Monday, October 9th.

Dr. LOCOCK, St. Thomas's Hospital, at eight A.M. Tuesday, October 3d.

Mr. MAXFIELD, Central Infirmary, Greville-street, Hatton Garden.

Dr. POWER, Theatre of Anatomy, 23, Chapel-street, Grosvenor-square, at nine A.M. Tuesday, October 3d.

Dr. RAMSBOTHAM and Dr. F. RAMSBOTHAM, London Hospital, at ten A.M. Wednesday, October 4th.

Mr. STONE, Anatomical Theatre, Great Windmill-street, at a quarter-past ten, Wednesday, October 4th.

Mr. WALLER, No. 111, Aldersgate-street, at a quarter-past eight P.M. Tuesday, October 10th.

*On Chemistry, by*

Dr. AGER,  
Dr. CLUTTERBUCK,  
Dr. COPLAND,  
Dr. HUE and Mr. WHEELER,  
Dr. RAMADGE,  
Sir G. TUTHILL,

} These gentlemen give courses of Chemistry connected with their Lectures on Medicine, and generally on the alternate days.

Messrs. ALLEN and AIKIN, and Dr. BOSTOCK, Guy's Hospital, at half-past nine, Tuesday, October 3d.

Messrs. BRANDE and FARADAY, at the Royal Institution, Albemarle-street, at nine A.M. Tuesday, October 10th.

Dr. BIRKBECK and Mr. PEREIRA, General Dispensary, Aldersgate-street, at ten P.M. Tuesday, October 3d.

Mr. BURTON, St. Thomas's Hospital, at eleven A.M. Monday, October 2d.

Mr. COOPER, No. 58, Aldersgate-street, ditto ditto.

Dr. GORDON, London Hospital, at ten A.M. Tuesday, October 3d.

Mr. MAXFIELD, Central Infirmary, Greville-street, Monday, October 2d.

Mr. MAUGHAM, No. 1, Dean-street, Borough, at half-past six P.M. ditto

Mr. PHILLIPS, Theatre, Webb-street, Borough, at a quarter before ten A.M. Tuesday, October 3d.

Mr. WOOD, Anatomical Theatre, Great Windmill-street, at nine A.M. ditto.

*On Physiology, by*

Dr. BARRY, No. 1, Theatre, Little Dean-street, Soho.

—, No. 2, Theatre, Webb-street, Borough.

Dr. BLUNDELL, Guy's Hospital, at half-past six P.M. Monday, October 2d.

Dr. ROGET, Theatre, 58, Aldersgate-street, at eleven A.M. Tuesday, October 3d.

Dr. SOUTHWOOD SMITH, Theatre, Webb-street, Borough, at half-past six P.M. Monday, October 2d.

*On Anatomy, Physiology, and Diseases of the Ear, by*

Mr. CURTIS, Royal Dispensary, Dean-street, Soho, at seven P.M. October 2d.

*On Cutaneous Diseases, by*

Dr. ASHBY SMITH, No. 12, Bloomsbury-square, at nine, Thursday, October 19th.

*On the Structure and Diseases of the Teeth, by*

Mr. THOMAS BELL, Guy's Hospital.

Mr. J. SNELL, 11, Crawford-street, Montague-square, at seven P.M. October 6th.

*On Botany, by*

Dr. BRIGHT, Guy's Hospital.

Dr. LUSH, St. Thomas's Hospital, at half-past twelve, Thursday, October 5th.

*On Experimental Philosophy, by*

Messrs. ALLEN and MILLINGTON, Guy's Hospital, at half-past five P.M. Thursday, October 5th.

*New Bartholomew School.*—In answer to our Correspondent, who is desirous of obtaining further information about this School, we beg leave to refer him to the very lucid Prospectus to be found in our last Number. His doubts about the selection of the teachers, appear to us quite unreasonable. Is it not stated in the document alluded to,—so remarkable for its unostentatious development of the plan,—not only that they were selected, but "*selected solely on the ground of their fitness for the departments allotted to them?*"! and, with respect to some of them, that their talents "*are so well known as to render any account of the manner in which the duties will be performed, perfectly unnecessary*"!!! What more would our Correspondent have? Surely nothing can be in better taste: nothing more satisfactory, than such testimony coming from the parties themselves, who are evidently the best judges of their own pretensions, and indeed the very persons on whose impartiality the discerning part of the profession will be disposed to rely.

*Hunterian Museum.*—We inserted a letter on this subject in our last Number, and have received another signed by "a Physician." We have at all times a dislike to anonymous communications, as in most cases the editor of a Journal gets the credit (or discredit) of them himself. But on the present occasion we have an



additional motive for declining to insert the paper in question,—namely, that the writer carries his censures much further than we can go along with him. He states, indeed, that his address is intended “neither to excite clamour nor to encourage prejudices:” to us, however it appears calculated to do both. We are not among those who are disposed to “laugh at the College,” on the one hand; or “to truckle to the Fellows,” on the other: in fact, we have avoided taking any part in medical politics, and in our last Number we alluded to an act of the *Censors* alone, whose officious interference with the College of Surgeons we believe to be condemned by none more heartily than by the members of their own body. On the subject which has called forth these observations, we repeat that explanation is required. Either it did rest with the *Censors* to have the *Licentiates* admitted to the Hunterian Museum, or it did not. If it did not depend upon them, let it be made so to appear, and no impartial person will blame them in this particular instance, whatever he may think of their taste and judgment in interfering in the business at all: if it did rest with them to admit or exclude the *Licentiates*, and they preferred the latter, then nothing that has been said of them is too severe, and nothing that we have said is severe enough.

After the Number had been completed, and when the last half-sheet was on the very eve of being thrown off, we received the following letter: as it is in allusion to the subject of the preceding paragraph, we have, though with some difficulty, made arrangements for its insertion.

Sir,—There is a letter in the last Number of your Journal, from “a *Licentiate*,” which you think requires explanation on the part of the *Censors* of the College of Physicians.\* It contains a complaint that the privilege of introducing visitors to the Hunterian Museum is restricted to the Fellows of the College of Physicians and the members of the College of Surgeons. I hardly think such explanation necessary; for surely every liberal and intelligent person would conclude that the regulation did not proceed from them.† However, I can have no objection to its being stated on my part, that it was one of the original conditions, comprised in a Treasury minute, when the Museum was presented to the College of Surgeons, which the trustees were merely appointed to see enforced. I am, &c.

Margaret-street; Sept. 27th, 1826.

JOSEPH AGER.

*Literary Notice.*—In the press, Dr. N. ANNOTT’S work on General and Medical Physics. It is a system of natural and experimental philosophy, with strictly scientific arrangement, but without any of the technicalities which render the study difficult to persons unacquainted with mathematics. It is intended to comprise all in natural philosophy that a man of liberal education requires to know, or that has any bearing on the medical art. Many questions of physiology, pathology, and practice, are fully entered into; there is a detailed account of late improvements both in theory and practice, and there are some new suggestions.

\* It was not the *letter* of the *Licentiate*, but the *conduct* of the *Censors*, which we said required explanation.

† We never said or supposed that the regulation proceeded from the *Fellows* of the College of Physicians or the *Members* of the College of Surgeons; but we inquired whether the exclusion of the *Licentiates*, on a recent occasion, did or did not originate with the *Censors*, as trustees *ex officio*.

## MONTHLY LIST OF MEDICAL BOOKS.

[No books can be entered on this List except those sent to us for the purpose; as, in the list hitherto transmitted, the names of works have frequently been given as published, which have not appeared for weeks, or even months, after.]

A Lecture on the Uses of Anatomy and Physiology in various Branches of Knowledge, delivered on the 1st of November, 1824, by JAMES MACARTNEY, M.D. F.R.S. F.L.S. M.R.I.A. Professor of Anatomy and Surgery in the University of Dublin, &c.—Dublin, 1826.

Callow and Wilson’s Catalogue of Modern Medical Books, for 1826.

A Catalogue of Second-hand and Scarce Medical Books, on Sale by Callow and Wilson, No. 16, Princes-street, Soho, London. (No. 2.)

A Comparative View of the more intimate Nature of Fever: deduced from Physiological Analysis, and illustrated by Critical Remarks and Practical Observations. By JAMES BLACK, M.D. S.R.N. &c.—London, 1826.

Part Third of a Series of Elementary Lectures on the Veterinary Art: wherein the Anatomy, Physiology, and Pathology of the Horse, are essayed on the general Principles of Medical Science. By WILLIAM PERCIVAL, Member of the Royal College of Surgeons, &c.—London, 1826.

Observations on the Medical Character. Addressed to the Graduates of the College of Physicians and Surgeons of New York, at the Commencement, held on the 4th of April, 1826. By DAVID HOSACK, M.D. &c.—New York, 1826.

An Introductory Lecture delivered in the College of Physicians and Surgeons, at the Opening of the Winter Session, on the 7th of November, 1825. By DAVID HOSACK, M.D. &c.—New York, 1825.

### METEOROLOGICAL JOURNAL,

From August 20th, to September 20th, 1826.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

Aug.	Moon.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
		9 A.M.	MAX.	MIN.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	2 P.M.	10 P.M.
20		70	86	61	29.60	29.77	72	50	E	SW	Fine	Fine	Fine
21		66	73	60	29.79	29.77	75	75	N	E	Cloudy	—	Cloudy
22		69	74	62	29.74	29.73	78	73	WSW	SW	Fair	—	Fair
23		70	73	63	29.65	29.51	80	80	SSW	S	Cloudy	Cloudy	Sm. Ra.
24		68	75	64	29.57	29.62	67	78	SW	SW	Fair	Fair	Fair
25		71	80	62	29.60	29.47	71	70	SSW	SSW	—	—	Th. & L.
26		69	73	56	29.73	29.72	67	65	SW	SW	—	—	Fine
27		66	71	57	29.78	29.86	68	68	WNW	SW	—	—	—
28		69	76	66	29.84	29.79	67	79	SSE	SSW	—	—	—
29		70	76	68	29.71	29.65	75	75	SW	SE	Cloudy	—	—
30		75	79	63	29.57	29.58	62	75	S var.	SW	Fair	—	Cloudy
31		67	73	59	29.66	29.66	67	74	W	SSW	Fine	—	Rain
Sept. 1		66	70	58	29.63	29.62	72	78	E	NE	Fair	—	—
2	●	59	65	61	29.55	29.57	88	92	NE va.	N	Rain	—	Cl. & Ra.
3		64	67	59	29.62	29.76	80	79	ESE	SE	Fair	Cl. Ra.	Cloudy
4		69	78	58	29.76	29.76	73	82	SW	WSW	—	Rain	—
5		65	66	54	29.76	29.67	70	69	NW	WNW	Cloudy	Show'ry	—
6		57	65	52	29.33	29.17	91	73	E	WSW	Rain	Rain	—
7		54	56	56	29.12	29.61	87	75	W	WNW	—	—	—
8		55	67	52	29.57	29.65	88	83	SW	W	—	Fair	—
9	☾	53	62	50	29.73	29.62	87	75	E	WNW	—	Show'ry	—
10		59	68	50	29.96	30.07	74	68	W	W	Fair	Fine	Cloudy
11		55	64	49	30.12	30.18	76	72	W	W	—	—	Fair
12		60	66	46	30.15	30.06	71	71	W	W	Fine	—	Fine
13		54	66	52	30.02	29.91	76	72	SW	W	—	—	—
14		60	69	47	29.86	30.01	76	76	SW	NE	—	Rain	Cloudy
15		55	63	48	30.14	30.24	72	70	NE	E	Fair	Fine	Fine
16		52	64	51	30.21	30.05	76	76	E	ESE	—	—	—
17		68	71	57	29.92	29.87	74	86	ESE	ESE	Fine	—	—
18		62	67	61	29.77	29.76	93	97	ENE	ENE	Rain	Rain	Fair
19	○	63	68	59	29.81	29.84	88	88	ESE	E	Fair	Fine	Fine

The quantity of Rain fallen in the month of August, was 2 inches and 27.100ths.

### NOTICE TO CORRESPONDENTS.

Communications have been received from Dr. Gregory, Mr. Stone, Dr. Hawkins, Mr. Boyle, Mr. Sym, and "A Physician."

*Erratum.*—In our last Number, page 248, line 30 from the top, *dele* the word "without."

# THE LONDON Medical and Physical Journal.

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NO 333, VOL. LVI.]

NOVEMBER, 1826.

[NO 5, New Series.

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For many fortunate discoveries in medicine, and or the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the Medical and Physical Journal of London, now forming a long, but an invaluable series.—RUSH.

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## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

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### PREVENTION OF PHTHISIS.

*Practical Remarks on that Cachectic State which is so common a Precursor of Pulmonary Consumption.* By WHITLOCK NICHOLL, M.D. M.R.I.A. F.L.S. &c. &c.

IF phthisis, or pulmonary consumption, be a disease so frequent "as to carry off prematurely (according to Dr. YOUNG's estimate) one-fourth part of the inhabitants of Europe, and so fatal that M. BAYLE will not allow it possible for any to recover who suffers from it in its genuine form,"\* no apology need be offered for the communication of any suggestions, however trifling, which may, in the slightest degree, tend to prevent the occurrence of so frequent and so fatal a malady.

There is a certain assemblage of symptoms, which, if unopposed, or if ineffectually opposed, is seen, in a host of instances, to terminate in phthisis. A similar assemblage of symptoms, if attacked with energy in an early stage, may, in many cases, be entirely dispersed, no pulmonary affection supervening; and, although no positive evidence can be adduced to prove that phthisis would have been formed in these latter cases, if the symptoms had not yielded to the timely aid of medicine, yet we may fairly conclude that such would have been the termination of these cases also, if they had not been arrested in their career.

When the assemblage of symptoms to which I allude is followed by phthisis pulmonalis, it matters not whether we regard the pulmonary disease as the direct effect of that

\* Dr. Goon's Study of Medicine.

earlier indisposition which gave rise to those symptoms, or whether we say that the precursory indisposition merely roused into action (for this is the favourite phrase,) that pulmonary malady to which there was a strong predisposition. We are not contending about technical forms of speech; but we are discussing facts of vital importance. It is sufficient for us that we know that a certain disordered condition of the general system, as manifested by certain symptoms, is seen, in a great many instances, to lead to phthisis, and that a condition apparently similar in every respect may, in many cases, be removed by proper management.

In the remarks which I am about to offer, I do not pretend to advance any new doctrine, or to state any new fact in the history of maladies which terminate in phthisis; nor do I boast of the discovery of any new or specific remedy. But I wish to direct attention to that cachectic state of the system which is so common a precursor of phthisis, and to offer a summary of that combination of familiar means which I have found most efficacious in removing that precursory state.

The cachectic state which is so common a forerunner of phthisis, is marked by the following symptoms:—Languor, lassitude, loss of power and of energy, gradual emaciation, general pallor, coldness of the extremities; all these symptoms being present without any marked disorder in any particular organ. The appetite may be diminished. The general health seems, to use the popular phrase, to be breaking up. Yet, if you ask the patient how he is, he will scarcely admit that he is ill. To this state succeed—irregular attacks of slight febrile excitement; cough, which at first scarcely attracts notice, and of which the patient is hardly sensible; transient uneasiness about the chest, which is scarcely the subject of complaint; wakefulness, perhaps, and restlessness, for which no reason is assigned; with a tendency to increased perspiration. These are the symptoms which principally characterise that disordered state of the system, which, in so vast a number of instances, paves the way to confirmed phthisis. If such a cachectic condition be suffered to exist for any length of time, the symptoms will become aggravated, the signs of pulmonary distress will gradually develop themselves, and all those characters will be present which too plainly indicate the existence of incurable local disease.

The cachectic state which I am endeavouring to describe, is, in an early stage of its existence, curable in a large proportion of instances; whereas, the local disease to which this cachectic state leads, is incurable. Whenever, therefore, those symptoms which characterise this cachectic state pre-

sent themselves, our utmost endeavours must, without loss of time, be exerted to remove this general indisposition of the system, before pulmonary disease be induced. It frequently happens, however, that the general cachexy manifests itself so gradually, and the formation of local disease is so silent and insidious, that the disorder of the system may have merged into pulmonic disease before the patient is aware of his perilous condition. But, if the patient fall under our observation even in the earlier stages of this insidious affection, a practised eye will, generally speaking, detect the mischief which is secretly unfolding itself. At all events, however strongly we may suspect that the lungs have become diseased, we must, with equal ardour, adopt and pursue those remedial means which prove salutary in the simple cachectic state, in the hope that our fears may prove unfounded; and that the disease may yet be within the control of medicine.

The cachectic state which leads to phthisis may be present at an early age; it is very commonly met with during adolescence, and in adults. It presents itself in persons of either sex, but it is especially seen in young females, and of these a large proportion will prove to be single women. Mental anxiety, disappointed hope, suppressed sorrows, and profound grief, are too often the slow causes of that general derangement of the health which so commonly, sooner or later, terminates in phthisis; and these mental emotions act with peculiar force on the delicate unresisting frame of a sensitive female. This cachectic state may also be a consequence of too rapid an elongation of the body at, or before, the season of puberty; it may result from undue confinement, and from over-exertion of the mental or bodily powers; it is often produced by too great a devotion to study: thus the present absurd fashion of forcing upon youthful females of all classes pseudo-accomplishments of every kind, tends, in no slight degree, to favour the production of this cachectic state. Unfortunately for the present and for future generations, the firm fibre of health and youth, the rosy tint which bespeaks energy and active life, and that spring of muscular activity which results from vigour of the general system, all these are denounced among females of fashionable life as the marks of coarseness and vulgarity; while nerveless inanition, pallor, and debility, are regarded as elegant marks of patrician birth and cultivated refinement. And, assuredly, few of our youthful females can run that career of studied dissipation and laborious pleasure which is chalked out in the paths of fashionable life for the delicate girl who has just escaped from the torturing hands of masters and finishers of every kind,

without exhibiting, sooner or later, those symptoms which denote an enervated and exhausted constitution.

The cachectic state of which we are speaking may also result from defective or improper nutriment; from the respiration of a vitiated or over-heated atmosphere; from copious or repeated hemorrhage, whether spontaneous or artificial; from excessive excretions of various kinds, whether natural or morbid, and especially in females of a peculiar temperament, and in those of a delicate habit, from lactation too long continued. It may also be the consequence of high febrile action, and it may succeed to febrile diseases of the exanthematous order. It may, in children or youthful persons of a peculiarly delicate and susceptible temperament, be induced by powerful doses of calomel frequently repeated; and it may, in persons of every age and temperament, be induced by long-continued courses of any preparation of mercury which produces in the system the specific effects of that mineral.

As the cachectic state which we are considering has a strong tendency to give rise to pulmonary disease, we must regard the lungs as the point towards which the several symptoms converge; so that, while the general indisposition of the whole system forms the leading object of our attention, our view must also be directed towards that point where local disease may be expected to occur. And this joint attention to the general derangement of the health, and to the common centre of attack, is the more necessary, because, although the prevention of local disease by the removal of the cachectic state forms the grand object of our endeavours, yet, as it is not possible to specify the exact point at which general indisposition passes into, and is blended with, local disease within the chest, that cachectic state may, in any given case, already have induced some incipient disease of the lungs, which, slight as it may be, may nevertheless have some share in heightening the signs of general disturbance, and may demand the more active employment of local means for the removal of it, and will assuredly, if it be not promptly removed, lay the firm foundation of permanent disease.

Our treatment, then, must embrace those general means which, by counteracting and removing the general cachectic condition, tend to prevent the formation or the development of local disease, and those local means which are calculated to suspend or remove that morbid condition of the lungs which may have been superadded to the constitutional disorder.

Suppose, then, that we are consulted by a patient who is in that cachectic state which I have endeavoured to describe,

—who labours under general asthenia,—whose spirits and whose energies are lowered or subdued,—whose size has been diminished by slow and imperceptible degrees,—who feels incapable of active exertion,—who is subject to coldness of the extremities, and to irregular attacks of slight febrile excitement and flushing of the countenance,—whose features are usually pallid, and have an expression of debility,—whose circulation is languid, the pulse, perhaps, being easily accelerated by bodily exertion or by mental emotion,—whose sleep is broken and unrefreshing,—who coughs from time to time, the cough being perhaps slight, or being at one time slight and at another time more violent,—who has some wandering or unfixed uneasiness about the chest, and whose respiration is perhaps hurried by walking or by any exertion of the body, or is at times slightly oppressed. Such a patient is to be regarded as journeying onward along the path which leads to phthisis; and, unless we instantly exert all those means which are calculated to arrest his progress, he may, in a short time, have proceeded so far as to be entirely out of the reach of medicine.

Our first object will, of course, be the removal of the cause from which the cachectic state has resulted, supposing that this cause is discovered and is still operating; and we must take care that none other of the causes which have been enumerated be allowed to operate. The patient must be released from all the trammels of study and of business; must breathe a pure atmosphere of a due temperature, and must be cautioned to avoid that habit of stooping which is so common in young persons who labour under this asthenic state, and which is so generally practised by students, who to this posture add the pernicious pressure of the chest against a table or desk. All exertion which entails fatigue must be strictly prohibited; and, if the patient feel weariness in the course of the day, he should recline on a sofa, with the head and chest raised. All inequalities of temperature must be carefully avoided, and the patient should particularly be guarded against sudden alternations of temperature, whether from a cool to a heated, or from a heated to a cool atmosphere. The surface of the body should be protected against the effects of cold; the lower extremities being guarded by warm stockings and thick shoes, while the chest, neck, and arms are covered by a waistcoat of wash-leather. The surface of the chest should be stimulated with the ointment of tartarised antimony, applied repeatedly, so as to produce and to keep up a constant supply of pustules; and, as these begin to die away in one part, they should be called forth in some fresh

portion of the surface of the chest, or between the shoulders. This pustular eruption should be kept up so long as the oppressed state of the system continues, or so long as there is any disposition to febrile excitement, to cough, or to uneasiness or oppression of any kind about the respiratory organs. This remedy, in combination with other means, will be found to be powerfully efficacious in removing that indescribable something which fetters and oppresses the general system, while it prevents the commencement of mischief within the chest, and tends, in no slight degree, to arrest and remove any disordered action which may be beginning to develop itself. It is a remedy in common use, but it is too commonly resorted to only when decided mischief has occurred within the chest; whereas, I would wish to enforce the adoption and steady application of it in the simple cachectic state which I have described, and to urge the necessity of keeping up a constant succession of pustules so long as marked indisposition continues.

We now come to the consideration of internal remedies. Our object should be the adoption of those remedies which are calculated to improve the general health, to strengthen the system, to correct any evil tendency in the constitution, to tranquillise the system generally, and to allay local irritation. In the supposed case of the patient now under consideration, these several indications will, in my opinion, be fulfilled by the regular and daily administration of a medicine compounded of Hydrocyanic Acid, Black Drop or Extract of Lettuce, Subcarbonate of Potash or Liquor Potassæ, and Decoction of Myrrh and Lichen. To specify the doses of such familiar remedies may appear to savour of quackery; but I would observe, that, as far as I have seen, full doses of some of these medicines are required to ensure the good effects which they are intended to produce: I may, therefore, be allowed to give the following formula—

R. Myrrhæ zij.; Extracti Glycyrrhizæ zij.; Lichenis ʒvj.;  
Aque Ojss. Decoque ad octarium et cola.

R. Decocti ut supra ʒjss. ad ʒij.; Acidi Hydrocyanici gtt.  
iv.; Guttæ Nigræ gtt. ij.; Potassæ Subcarbonatis gr. viij.  
M. fiat haustus.

This is my favourite combination, and it affords an admirable remedy in cases such as that now under consideration, when it is employed, as it ought to be, in conjunction with the external application of tartarised antimony. The draught may be given twice or three times a-day.

The patient should drink asses' milk, and should take light, simple nutriment, avoiding stimulants of every kind;



never distending the stomach with food, nor fasting too long, nor taking food too frequently. He will, of course, be directed to attend to the state of his bowels, keeping up a natural but gentle action of them by mild unirritating means. Exercise in a carriage, or on horseback, should be enjoined; but the exercise must not be carried so far as to fatigue. The bed of the patient should not be too soft; it should be made so as to present a plane regularly inclined from the head downwards, and it should not be surrounded by closely-drawn curtains.

The foregoing plan of treatment should be strictly enforced, and steadily pursued, so long as the symptoms which have been enumerated present themselves. When all uneasy sensation (whether of pain, of infarction, or of oppression,) is removed from the chest,—when cough is no longer present,—and when all symptoms of febrile excitement have ceased, the stimulating application to the chest may be slowly and cautiously withdrawn; the medicines which have been recommended may be gradually discontinued, and a more generous system of diet may be carefully introduced.

In cases where the symptoms denoting a cachectic state are chiefly those which indicate simple asthenia, the removal of every cause whose operation may induce the cachectic state of which we have been speaking, together with the other cautions which have been laid down, aided by the shower-bath, by friction with salt, by sea-breezes, and by sea-bathing cautiously resorted to, with the further aid which will be derived from the exhibition of four or five grains of Sulphate of Quinine, made into a pill with Extract of Gentian, repeated twice a-day, and of a large tea-spoonful of Liquor Potassæ given three times a-day in table-beer; while, in case of wakefulness or restlessness at night, a pill composed of a grain and a half, or two grains, of Extract of Lettuce, is administered at bedtime: these means will, very generally, be sufficient to re-establish the healthy state of the system. But, if the symptoms of debility maintain their ground in spite of this remedial treatment,—or if there be much restlessness or general irritation present,—or if there be even a suspicion of uneasiness about the chest present,—or if there be present any cough, however trifling it may be,—or if any febrile symptoms present themselves; in either of these cases, recourse should be had to the ointment of tartarised antimony, which should be freely applied, without delay, to the surface of the chest, so as to keep up a constant supply of pustules; and the draught, which has already been recommended, should be substituted for the quinine pill.

It is important that I should remark, that, in cases of this cachectic state of the system, where signs of local disorder are beginning to be superadded to those which spring from the general asthenia; where, for instance, slight cough, obscure uneasiness about the chest, and slight febrile symptoms, present themselves; attempts are too generally made to get rid of the signs of incipient pulmonic disorder by what is termed the strict antiphlogistic treatment, by the employment of which the yielding powers of the system are still further subdued, and the local mischief is too often confirmed. In such cases, abstractions of blood, nauseating doses of Emetic Tartar, or powerful doses of Digitalis, are not unfrequently resorted to as the means of cure; and they too commonly exhaust the remaining energies of the system, and tend to fix and to hurry onward the local evil against which they are employed. Whereas, in cases of this description, if the practitioner will guard his patient strictly from all sources of mischief; if he, with no sparing hand, will excite pustular eruption on the surface of the chest and between the shoulders, while he administers Prussic Acid and the Black Drop to the extent already specified, in almond emulsion, together with small doses of Nitre combined with the Subcarbonate of Potash; prohibiting stimulating food of every kind; allowing the patient a free supply of asses' milk, of fresh vegetables, and of vegetable puddings; keeping him in a regulated temperature, free from all worry and disturbance; he will, by pursuing this kind of plan, have the satisfaction, in a large proportion of cases, of seeing the signs of pulmonary distress and of febrile excitement gradually disappear; and, by still pursuing this system of treatment for some time after the disappearance of these symptoms, and by then introducing cautiously some mild vegetable tonic, together with a more invigorating plan of diet, he may gradually restore the system to its original healthy condition. In cases such as those which we are now considering, too much anxiety is very commonly shown to get rid of particular symptoms, by means aimed directly at those symptoms; whereas, since symptoms are but the signs, the results, of disease, the only legitimate mode whereby we can get rid of them is by removing the disease which gives rise to them. Acceleration of the pulse, for instance, is very commonly a symptom attendant on the state which we are treating of: it is a symptom dependent on the general irritability of the debilitated system, or on local irritation which has been superadded to the general cachectic condition. Attempts are very generally made, in these cases, to reduce the velocity of the pulse by direct means; but a

reduction of the frequency of the pulse is not the removal of disease, it is but the stifling of its warning voice; our object should be the removal of that disease of which the frequency of the pulse is an effect, and we shall find the effect disappear as soon as the cause is withdrawn. As the exhibition of digitalis has been observed, in some cases and under certain circumstances, to be followed by diminished frequency of pulse, that vegetable is usually had recourse to in those cases of incipient pulmonary affection succeeding to general cachexy, which are attended by increased frequency of the pulse. But the free exhibition of digitalis in these cases, if long persevered in, is found, in too many instances, to add to that general debility which was the original founder of the local affection, while it rarely succeeds in subduing that symptomatic acceleration of the circulation, the removal of which, if accomplished by any other means than by a removal of the cause which gave rise to it, cannot answer any good or lasting purpose.

It may happen, indeed, that those first dawnings of pulmonary disorder which so insidiously succeed to general cachexia, may be accompanied by symptoms which indicate slight inflammation of the respiratory organs. In these cases, the immediate imposition of a large blister, with the internal exhibition of Prussic Acid and Nitre, in almond emulsion, with small doses of Ipecacuanha and Extract of Hyoscyamus, may be sufficient to remove those symptoms. Or, in some of these cases, it may seem sufficient to apply leeches to the parietes of the chest, in addition to the other remedies which have been pointed out. But all copious abstractions of blood, and especially general blood-letting, should be avoided in these cases, unless the pressing urgency of inflammatory symptoms imperiously call for them; and, where they are so required, we should not forget to exhibit, after these depletions, the draught of prussic acid and almond emulsion, with the black-drop or lettuce-opium; the prudent and timely administration of which will, by allaying irritation, obviate the necessity of further depletion.

The foregoing remarks have verified the assertion made in the commencement of this paper, that I had no new doctrine to advance, no novel remedy to propose. My object being to call attention to that curable state of cachectic disorder of the system which so commonly lays the foundation of incurable pulmonic disease, it would be foreign to my purpose to enter into the consideration of the more advanced stages of confirmed phthisis.

There is, however, a disordered state of the respiratory

organs, which, in its local and general symptoms, is so commonly mistaken for advanced phthisis, but which is, in a great proportion of instances, curable by proper management, that I cannot avoid mentioning it; and I may do so with the greater propriety, because, as this paper has for its object the delineation of curable disorder, and the prevention of incurable pulmonic disease, so may it be allowed to embrace the consideration of a curable malady, which may, in its curable state, be, from its resemblance to phthisis, abandoned as hopeless and irremediable; or, by improper treatment, may be allowed to degenerate into incurable pulmonic disease. The disease to which I allude is bronchial catarrh, in its asthenic or chronic form. In this affection there is troublesome cough, dyspnoea, copious expectoration of thick sputa, which are sometimes streaked with blood: the continued cough, and the unceasing efforts to expectorate, produce and keep up uneasiness of the chest and frequency of the pulse; the appetite becomes much impaired; debility and emaciation ensue, and copious perspiration often occurs; the ankles, in many instances, become oedematous; and there is a strong tendency to effusion within the chest. Affections of this kind, when they have maintained their ground for a considerable length of time, and especially when they occur in habits previously debilitated, may destroy the patient, either by inducing effusion within the chest, or by degenerating into confirmed pulmonic disease. But, in an earlier stage, and not unfrequently even in more advanced stages, these affections may be removed by steady perseverance in the use of remedial means. In these protracted cases of asthenic bronchial affection, there is no remedy more decidedly efficacious than the inhalation of the fumes of tar. Where a more perfect apparatus cannot be procured, every purpose will be answered by placing a small quantity of tar in a small pickling jar, into which is to be introduced a heated piece of iron, having a short wooden handle; inverting over the mouth of the jar a common funnel, and placing the finger of the patient on the orifice of the funnel, by which he will regulate the exit of the fumes. A little practice will teach him the degree of density at which he can respire these fumes, and the degree of heat which should be given to the iron; the temperature of which should be such as to produce dense whitish, and not blackish, fumes. The patient should inhale these fumes, at short intervals, for a few minutes, having recourse to the operation three times a-day. He should, at the same time, apply the ointment of tartarised antimony with freedom to the surface of the chest, so as to procure an

ample supply of pustules. He should take also the decoction of myrrh, lichen, and liquorice, with subcarbonate of potash, together with full doses of prussic acid; allaying irritation with the extracts of hyoscyamus and lettuce, or with the black-drop; or he may have recourse to the oleum terebinthinæ, in doses of half a drachm rubbed down with a little syrup of poppies, mixed in decoction of myrrh and cinchona, repeated twice or thrice a-day.

There is another state in which bronchial affection is coupled with great debility, presenting a strong resemblance to confirmed pulmonic disease or to phthisis, but which is, generally speaking, curable. I allude to those cases in which inordinate bronchial secretion, with its common attendants, cough and difficult respiration, occurs in patients who have just emerged from continued fevers of the typhoid type. I have seen not a few cases of this kind, where the harrassing cough, the continual expectoration of thick sputa, the copious perspiration, the wakefulness, the hurried circulation, and the extreme debility of the patient, presented an appearance closely resembling that which accompanies confirmed and incurable pulmonic disease. The remedy on which I have depended in these cases, and on which I have found my reliance well placed, has been opium, given pretty freely and repeatedly: it may be coupled with the prussic acid, and its effects should be supported by mild nutritious diet.

Old Burlington-street; June 1826.

#### EXTERNAL APPLICATION OF BELLADONNA.

*On the External Use of the Extract of Belladonna.* By THOMAS WM. CHEVALIER, Consulting Surgeon to the Royal Union Association, and acting Surgeon to the WESTMINSTER GENERAL DISPENSARY.

It follows, from the nature of all *power*, and particularly from that of the *vis insita musculorum*, that an excess of vascular action cannot take place without either excessive excitement, or excessive sensibility to ordinary excitement.

To remove irritation has, therefore, always been considered one chief object of medical and surgical treatment; and, indeed, if it could be accomplished under all circumstances, and to an unlimited extent, every kind of morbid inflammation would be curable.

There are many circumstances, however, which limit both the physician and the surgeon, in their attempts to diminish extraordinary *vascular excitement*; for there are many cases in which the immediate cause of such excitement cannot be

removed; and there are some in which it cannot even be diminished; so that in these there remains only the hope of allaying the *sensibility* of the part affected. And, although we have various means of allaying the sensibility or irritability of particular organs, as well as of the whole body, yet, even in this intention, our power is greatly limited; for most sedatives impair the natural functions in nearly the same ratio in which they alleviate disease, and we have scarcely any very powerful sedative, at present in general use, that can be so applied as to alleviate local disease, without affecting also other parts which are in health, or even the constitution of the patient, both unnecessarily and injuriously.

The Extract of Belladonna is the strongest sedative of which the College of Physicians authorises the employment. It is a remedy of which the effect is most uncertain, when it is internally administered; but, when applied in the form of an ointment or of a plaster, it has been found by the author to exercise a most decided and most beneficial effect upon the parts beneath it, without at all affecting the constitution of the patient, or any other organ than that on which it is intended to operate.

In the first of the following cases, the author was enabled, by means of this extract, successfully to employ remedies, which otherwise it had been impossible to use; in two others a complete cure was obtained of limbs condemned to amputation; and by the rest it appears established, that inflammation, of the most obstinate and destructive kind, may frequently be subdued by a judicious application of the same external sedative.

A gentleman, of unusually firm mind, applied to me, in July last, under the following circumstances:—He had contracted a gonorrhœa five years before, which was relieved by the use of injections, but left a gleet that had never since been entirely cured. Of late he had suffered severely from pain in the region of the left kidney, and he informed me that he had been under treatment for a stricture; his former medical attendant (whose name I forbear to mention,) having passed bougies of a size not exceeding No. 7, and directed him to wear them in his urethra, frequently during a walk of two miles. On the 15th, I introduced the largest bougie he would allow me to use, (*viz.* No. 7,) and discovered a mechanical obstruction in the membranous part of the urethra, anterior to which (*viz.* at about two inches from the external orifice,) a portion of the canal, about half an inch in extent, was so intensely irritable as not only to resist for some minutes the passage of the instrument, but also to render its

introduction so intolerably painful, that the perspiration broke out in beads upon the patient's forehead: in short, he manifestly suffered more than any one would or could submit to frequently. Under these circumstances, although I believe it had never been done before, I resolved to anoint the bougie with the extract of belladonna, at first mixed with that of opium, and afterwards pure, being merely moistened with water; and I sometimes intentionally left a portion (I should imagine from one grain to three) of the pure extract of belladonna in the irritable part of the urethra. After the bougie, thus prepared, had pressed upon the irritable spot for about two minutes, the intense pain which my patient at first endured was mitigated, so much that I continued to pass larger bougies in succession, until at length No. 14 was introduced without any difficulty. The pain in the region of the kidney was relieved, and finally cured, under the application of a plaster composed of one-third *Extractum Belladonnæ* and two-thirds *Ceratum Saponis*, with an occasional blister. The gleet was got rid of by means of astringent injections, together with the nocturnal use of one which I have found very useful in other cases of the kind, and in several cases of gonorrhœa, and which is composed of an infusion of cubeba, in the proportion of an ounce to a pint, with a scruple of the extract of belladonna.

I may here add, that I have used a solution of the *Extractum Belladonnæ*, combined with other ingredients, and especially the vegetable astringents, in many other cases of irritable urethra and of morbid tenderness in the vagina, with similar success.

To scrofulous glands I have applied the belladonna ointment, (composed of equal parts of the extract and of some other ointment,) sometimes with striking advantage: in these, as in other cases, I employ it where *the treatment of allaying irritation, by means of decreasing the sensibility of parts*, is especially indicated as a means of cure, or as the only means of relief.

In the case of Charles Bloquet, from an abscess in whose neck I let out more than half a pint of fetid pus with some sloughy shreds, I cannot but believe that I obtained an uniformly progressive and complete recovery, principally by the use of the belladonna ointment, as often as the inflammation threatened to become active. The extensive induration over all one side of this man's throat was, however, dispersed by the use of the *Unguentum Hydriodatis Potassæ*; the belladonna being employed beneath a poultice

as often as a return of suppurative inflammation was threatened.

In many cases of inflamed periosteum, in cases of venereal node, and also more especially in cases of scrofulous disease of the bones and joints, and those affections of these parts which arise from the abuse of mercury, the extract of belladonna, as a soothing application, is exceedingly valuable. As every other remedy, it must, however, be employed judiciously and upon principle, to exhibit its power. Let us, therefore, consider in how many such cases constitutional remedies would effect a cure, and that a perfect one, could we but *delay* the progress of the local morbid action: and be it observed, that the extract of belladonna, although a very powerful sedative, is far from being the only one, or even the best, in many cases, that might be employed, upon similar principles, with inestimable benefit. In one case, where a tumor, as large as half a small orange, had formed upon the back of a labouring man's right hand, so that the hand was condemned to be amputated, and as I myself believed must have been so, the swelling dispersed in less than ten weeks, under the belladonna plaster, in the first instance, and afterwards the pure extract.

Again, Matthew Hill, a boy of fourteen years old, of scrofulous constitution and delicate form, came to me at the Dispensary in August last. I found him suffering, on the 25th, from severe pain in the left knee-joint, which had been bent during the last five years, and imperfectly ankylosed, at almost a right angle; the condyles were half as large again as those of the other knee; the capsular ligament was distended with fluid, and (as the severity of the pyrexial symptoms indicated) with pus; and it was pointing on the inside, where the skin was prominent and inflamed. By the application of leeches, a poppy fomentation, and narcotic poultice, with the free administration internally of equal parts of laudanum and antimonial wine, the severity of the symptoms was subdued. Amputation, however, was insisted upon by myself, and upon the opinion of Mr. Copland Hutchison; but the boy refused to submit to it: I therefore commenced the use of belladonna plasters, and the joint from that time continued to diminish in size, and to become less sensible; while the boy's general health was much improved by the use of tonics and generous diet. In October, I commenced the use of splints over plasters of the pure extract of belladonna, covering the whole knee; and, by changing the splints for new ones made purposely for him, and adapted to his



limb, so that it was always retained at its proper degree of distention in perfect rest, I was enabled to bring the leg and thigh to an angle of  $150^{\circ}$ , the knee-joint being little larger than the other; and I have no doubt that I should have completely straightened it, but that the boy was of too volatile a disposition to care about his crooked limb, when set in comparison with close confinement; so that he left off coming to the dispensary. He took at different times cinchona, steel wine, and sulphate of zinc.

Upon the above principle I have straightened several limbs, but much perseverance is required, both on the part of the surgeon and his patient; and also considerable expence must be incurred for splints.

In cutaneous affections, the belladonna is frequently efficacious. In several cases of herpes, and in some of very many months' continuance, the disease has been cured in a week or two with the ointment. In several cases of a cutaneous affection, like herpes, which is common in the face of young children, and in one of this kind which had long baffled every other mode of treatment, the use of the belladonna ointment, beneath gold-beater's skin, has cured the disease, though of some years standing, in as many weeks. I should here observe, however, that this ointment has, in one or two cases of herpes, rather done harm than good, where the vessels of the part were previously much debilitated.

In some cases of cutaneous ulcerations, with much induration, from scrofula, and in other cases of extremely irritable ulcers, wherein the ulcerative character is most strongly marked, I have employed the belladonna with advantage, either as applied over the dressings to the surrounding skin, or immediately to the sore. This is the more remarkable, inasmuch as the belladonna plaster, if left on too long after it begins to annoy the patient, is capable of producing small sores of a purely ulcerating character, though to be readily healed by mild cerates.

Incipient abscesses have been resolved, and in one case, most decidedly, I was enabled to prevent an extravasation of blood beneath the fascia from suppurating, by the application of belladonna.

In the case of Mary Dryden, who applied to me at the dispensary for an obstinate cutaneous inflammation of three years' standing, which had left a cicatrix over the whole of one shoulder and breast, and had traversed the throat, being now seated on the nose and eyelids, in the form of an angry scabbing superficial ulceration, not very different from noli-me-tangere, a rapid cure was obtained by the use of sarsa-

parilla and the belladonna ointment; namely, in less than five weeks.

I have used the belladonna ointment in cases of erysipelatous inflammations: in these it is not equal in efficacy to spirituous applications, and far inferior to the Eau de Cologne. The case in which I derived most advantage from its employment, was one of cedematous ankles, attacked with erysipelas from scarification, and affected with intense pain and tenderness: in this case it accomplished complete relief in three or four days.

The servant of a friend of mine had been suffering, in the year 1824, during more than nine months, from all the symptoms of ulceration in the kidney, with retention of urine. She was last year attacked, more severely than ever before, with the same disease, and yet she was completely relieved from every symptom in four or five days, by large quantities of opium, castor, and valerian, internally administered, while a plaster of belladonna and soap cerate was applied to the region of the bladder. In other cases of a similar nature I have seen this remedy most decidedly efficacious.

I have used the belladonna ointment to cancers in a state of ulceration, with the most decided advantage; but in these cases it has been only of the strength of from one-sixth to a fourth part extract. An ointment composed of one-sixth flowers of digitalis and five parts fresh butter, (prepared by boiling until the flowers are crisp, and straining,) is also a very efficacious means of diminishing the activity of cancerous action. This ointment was much used by my late father in such cases, and with extraordinary success.

In inflammatory and spasmodic affections of the thoracic viscera, I have employed belladonna plasters with singular relief, applying them to the seat of pain or between the mammæ, from the size of a duodecimo to that of a large octavo page. Some degree of caution, however, is necessary; for in those who have been rendered irritable by the long continuance of internal disease, whose pulse is weak and varying as to its frequency, the hand unsteady, and the whole frame debilitated beyond what might be expected from the first appearance of the patient, the belladonna plaster will occasionally, though very rarely, affect the pupil; the sight becoming dimmed, and the head disordered. I know of one case in which a large belladonna plaster, applied to the loins of such a subject, produced a degree of paralysis of the levator palpebræ superioris, which continued many weeks afterwards, and only got well at last under repeated blisters applied to the temple. Where the debility of the patient,

although considerable, does not exceed what the general appearance of her frame would indicate, I have not seen these ill effects, although I have extensively employed the remedy in such persons.

In cases of tooth-ache, of abscess with severe pain, partial acute rheumatism, &c. &c. I had long been accustomed to use not only pure laudanum as an embrocation, but also to rub the neighbouring skin with a solution of Extractum Opii, sometimes of the consistence of honey; and, excepting in children, I never saw any inconvenience arise from this treatment. The late Mr. Griffiths, surgeon to St. George's Hospital, was in the habit of applying the black drop to the most extensive burns: I have applied it, by his order, to more than half the surface of a child's body, and I never knew any case in which it did the slightest harm. I have heard, indeed, of a child's dying suddenly under the application: and who has not known children severely burned die suddenly under the simplest treatment.

Encouraged by these facts, and accounting the surest remedy, if demonstrated to be safe, as the first to be used in all cases, I caused my patients with acute rheumatism in a single limb, for example, or in the scalp, chest, &c. to rub the part affected with an ointment composed of from an eighth to a fourth of Extractum Belladonnæ, with a few drops of Oleum Lavendulæ Anglicanum, and the rest lard; and by this means the pain is almost certainly relieved, and the disease subdued. In one case, as often as the ointment was used, the rheumatic inflammation ceased, reappearing in another limb; recurring in this way six or eight times. I am, however, accustomed to direct that the ointment should be rubbed upon the part only until the pain *begins* to abate, and left upon it afterwards only while the pain continues to be present.

I should think there cannot be less than between two and three hundred persons, to whom I have applied the belladonna plaster or the ointment, in my private practice and at the Westminster Dispensary, (where I have been appointed to act for one of the surgeons, Mr. A. C. Hutchison, during two years,) and the cases are very few in which it has failed to do good; none in which it appears to have done harm. I am, however, far from presuming that it is incapable of producing the most serious mischief, if imprudently employed, or if it should not be removed as soon as ever the sight is the least affected by it. The facts contained in this paper are intended only to prove that it is a powerful and safe mean of allaying the sensibility of parts; and that, with proper care and judg-

ment, it accomplishes this important end without at all affecting distant parts,—still less, the constitution generally.

A good deal of care is requisite in preparing both the ointment and the plaster, or the one will not be thoroughly mixed, and the other will not adhere.

In concluding this paper, I feel myself called upon to acknowledge my obligations to my friend Mr. Powel Blackett, of Park-street, Grosvenor-square, to whose paper in this valuable Journal I am indebted for the first inducement I received to make an extensive trial of the belladonna, as well as for the proportions of the extract in the ointment and plaster.

20, South Audley-street; July 12th, 1826.

#### VACCINATION.

*On the Practice of Vaccination.* By GEORGE GREGORY, M.D.  
Physician to the SMALL-POX AND VACCINATION HOSPITAL.

IN the performance of this very simple, but most important operation, it is at all times highly desirable, and in many cases an object of the first importance, to *ensure* its success. Failure *in the operation*, (for of that only I am here to speak,) is always harassing to the parent. Frequently it is taken as a pretext for deferring the process altogether; and, in the case of small-pox existing in the neighbourhood, it exposes the life of the child to great and imminent hazard. With this impression, I have, for several years past, directed my attention, in an especial manner, to the causes of failure in conducting the operation of vaccination; and I believe I have now detected the most of them. If there are any which have escaped my notice, the omission may perhaps hereafter be supplied through the kindness of some of the correspondents of this Journal. Of these sources of failure, some have reference to the mode of operating,—some to the selection of lymph,—and others to the system of the subject operated upon.

1. The first and most general cause of failure is, I should presume, the use of the dry lymph of points and glasses, especially of the former. Not having any experience, however, in this mode of operating, I am incapable of forming a judgment of the extent to which it applies. It would be highly satisfactory to myself, and probably not less so to other readers,) if some country practitioner would be kind enough to state in what proportion the points and glasses, with which he may have been supplied from London, (especially by the National Vaccine Establishment,) are *effectual* in producing a vesicle; which of the two is to be preferred; and what is the most successful mode of operating with them.

I have ascertained, by frequent experiments, that lancets, well charged, and kept perfectly cool, will retain the virus unaltered, even in summer, for about six hours.

2. Most vaccinators, however, must have occasionally experienced failures, when operating in the *direct* mode; one of the most frequent causes of which is the employment of an unfit lancet. This is a matter of the utmost consequence to the success of the operation. Unless the lancet be clean, and moreover perfectly sharp, the virus is *thrown back* upon the shoulder of the instrument, and not a particle enters the wound. Some surgeons, to remedy this, smear the remaining virus over the *surface* of the skin operated upon; but frequent observation has proved to me the utter inutility of this measure. It is curious, and instructive also, to notice the different degrees of *toughness* in the skins of children. In a very large proportion of the cases of failure which have fallen under my own immediate observation, I have remarked an unusual toughness in the child's skin, and have consequently attributed the want of success to the use of a comparatively *blunt* lancet. It has frequently occurred to me to notice that a lancet, which has been successfully employed in venesection, is yet not sufficiently sharp for the purposes of vaccination. It is desirable that a vaccinating lancet should have a *broad* shoulder, for an instrument of this form best retains an adequate portion of virus.

3. Another source of failure may be found in the mode which some practitioners have of operating upon the unstretched skin. To ensure success, the skin should be kept, during the whole time, *perfectly tense*; and this is only to be done by grasping the arm firmly, and fixing the skin between the thumb and fore-finger of the left hand. In the hollow thus formed; there is ample room for as many insertions as may be desirable.

It does not coincide with the strict object of this paper, but it cannot be altogether irrelevant, to point out the proper number of incisions which should be made. A series of observations which I have made at the Small-Pox Hospital, during the last six months, has satisfied me that the most complete effect, both upon the arm and upon the constitution, is made by *six* or *eight* punctures, supposing them all to be effectual. In the space just alluded to, eight, or even nine, punctures may easily be made in the circular form, and at moderate distances; as thus—  
 The advantage of the circular form is, that  
 the true figure of the areola is thus preserved:  
 independent of which, all forms of cutaneous

eruption are naturally disposed to assume either a circular or a crescentic arrangement.

On this subject I have only further to add, that it is a matter of perfect indifference, provided the directions here given are followed, whether little or much blood flows from the wounds.

4. Another class of circumstances which I have observed to interfere with the success of the operation, has reference to the *selection of lymph*. It is unnecessary for me to dwell at length on the impropriety of taking lymph from a vesicle, of which the areola has begun to subside. After the tenth day, the virus is scarcely fluid; and the moisture which sometimes exudes at this period cannot be relied on for propagating the disease. All practitioners are aware that the lymph ought to be perfectly limpid; and this cannot be ensured after the eighth day (including the day of insertion).

5. But, though this matter is well enough understood, I question whether practitioners have sufficiently considered another point,—viz. when a well-chosen vesicle ceases to afford effective lymph. The facts I believe to be these:—A fifth-day vesicle will not commonly afford virus for more than one subject. An eighth-day vesicle (even when very tumid) cannot be relied upon for more than six or seven subjects. If the lancet is applied to it oftener than this, (especially with any degree of roughness,) an effusion of common serum takes place, and the lymph becomes too much diluted to produce any effect. It may not be altogether superfluous to remind the reader, that effective lymph must always possess a definite degree of intensity, and that the maximum of dilution is often rapidly attained. To prevent this too-frequent source of disappointment, the vesicle should at all times be handled very gently. It is obvious that, the younger the lymph (fourth or fifth day), the greater is its degree of *intensity*.

The propriety of inserting a numerous crop of punctures becomes here very evident. Besides saturating the system more effectually, it enables the vaccinator, at a large establishment, to open a new vesicle every third or fourth operation; the advantages of which, in ensuring the success of the process, are great and undeniable. It may perhaps be imagined by some, that the numerous punctures now recommended will add considerably to the local inflammation, and the distress of the child. This, however, is not the case. Extensive experience has proved to me, that the areola from nine punctures, if arranged in the manner I have just suggested, is not larger than that from two or three placed at a

considerable distance from each other. The greatest number of effective insertions I have hitherto made is twenty, and I have noticed that, though the *constitution* sympathises more decidedly in such a case, the *local* irritation is not, *cæteris paribus*, greater here than under common circumstances. In a few of these cases, I have observed, about the eighth day, a pretty copious eruption all over the body, of a lichenous character, disposed in crescentic forms, and receding in two or three days. I am strongly inclined to view this as a peculiar disease—Vaccine Lichen, the constitutional effect of a copious production of the vaccine virus. The objection, however, that parents generally raise to these numerous punctures, has hitherto prevented me from determining this point in a manner that can be considered perfectly decisive.

6. The last source of failure in the operation of vaccination may be traced to the *system of the subject operated upon*. To ensure the success of the operation, the child should be in perfect health. So far from thinking it desirable (as many persons tell us, and as the common people in this town very generally believe,) to vaccinate during the presence of hooping cough, I am sure it is quite the reverse. Robust health is the best *predisposer* of successful vaccination. We all know that, when small-pox is once in the blood, vaccination will never prosper. The vesicles, if they rise, are then tardy and imperfect. In like manner, vaccination *sometimes* fails from the prior occupation of the system by some other internal disorder; and failure, therefore, does not *necessarily* presume error on the part of the practitioner. This, however, is a flattering unctio, and far from being a common case; for the drooping of the little patient would generally be so obvious, as to discourage both parents and practitioners from attempting the operation.

If it had been my object in this paper to investigate the sources of failure in the protecting influence of vaccination, I should have taken this opportunity of making some remarks on the ages best adapted for obtaining the full effect of this salutary process; but I wish to confine myself entirely to the causes of failure in the operation itself. I shall merely remark, therefore, in reference to that question, that the most proper age for vaccination is between the second and fifth month; that is to say, after the infant has acquired plumpness, and before it has begun teething.

I may perhaps be permitted to conclude this communication with the following short "Instructions for young Vaccinators."

See that the child be in good health, and free from any

cutaneous affection. Select from a healthy child, lymph of the sixth, seventh, or eighth day. Be careful that your lancet be extremely sharp, and if it be broad-shouldered, so much the better. Let there be a tangible *drop* at the point of the lancet, and be not satisfied with a mere moistening of the instrument. Let the skin be kept perfectly tense during the time of insertion, by grasping the arm of the child firmly, and extending the skin between the thumb and first finger of the left hand. Let the lancet be inserted from above downwards, and at each fresh insertion dip the point of the lancet in the lymph that remains around the incision *first* made. Make from six to ten punctures in a circular form, enclosing a space about the size of a shilling. At each insertion, press the point of the lancet firmly against the *lower* surface of the wound.

"Then the charm is firm and good."

If possible, open a fresh vesicle every second or third operation.

8, Upper John-street, Golden square;  
October 10th, 1826.

#### PURPURA HÆMORRHAGICA.

*Cases of Purpura Hæmorrhagica.* Treated by Dr. HAWKINS, at the MIDDLESEX HOSPITAL.

I. Oct. 30th, 1825.—SARAH PARISH, aged fourteen years. Her health has been good until a month ago, when she was attacked with headache and sickness, and the medical man who attended her said that she had slight fever. Her bowels have been kept open by medicine, but she has occasionally vomited a dark matter; her urine and evacuations by stool have also been of a dark colour, but she does not believe that they have contained any blood. About a week ago an oozing of blood commenced from the mouth and nostrils, and has continued ever since. Very soon after the bleeding, purple spots appeared, first on her arms, afterwards on her body and legs, and they have since been increasing in number and size. At present she is covered with petechiæ of a red colour, interspersed with larger, irregular, and purple ecchymoses. Her lips and tongue are covered with sordes and clotted blood. She suffers from thirst, and longs for acid drinks. Pulse 140; but her skin is cold, with frequent shiverings, and her countenance very pale. Complains of pain in her limbs, and she cannot get up stairs without assistance. Her bowels have not been open for two days. She has never menstruated.

She was ordered to take a dose of Calomel with Scammony immediately; and four hours after, Infusion of Roses, with dilute Sulphuric Acid, Syrup of Poppies, Sulphate of Magnesia, and Compound Tincture of Cardamoms, of each half a drachm, to be continued three times a-day.

October 31st.—Her bowels have been acted upon only once by



the medicine, and she complains of pain in them, although they are not hard nor tumid. Her mouth has become much cleaner, and there has been scarcely any bleeding since she has taken the acid draught.

A dose of Jalap and Calomel immediately; afterwards continue the draught.

November 1st.—After passing a very copious stool, of a brown colour, she felt considerably relieved.

Let the Jalap and Calomel be repeated to-morrow morning.

2d.—Her bowels have again been acted upon freely, and the stools are of a lighter colour. She feels much better, and has no pain in her limbs.

The Calomel and Jalap were again repeated on the mornings of the 3d and 5th November, and occasionally afterwards.

On the 7th, the petechiæ and ecchymoses had nearly disappeared. Pulse 120, rather sharp, and fuller than before.

Tinct. Digital. m. v. to be added to the draught.

9th.—Pulse still frequent, but not so sharp.

Mist. Camph. c. Tinct. Ferri Muriat. m. x.; & Tinct. Digital. m. v. ter die.

On the 12th, she felt considerably stronger; and, on the 22d, was discharged perfectly well, although the catamenia had not yet appeared.

II.—William Wilks, aged fourteen years, was admitted into the Middlesex Hospital, July 27th, 1826. He had been ill four days with dysenteric symptoms, accompanied with severe pain in the abdomen, increased by pressure. He had leeches twice applied on the abdomen; and had at first Calomel with Opium, and afterwards Ol. Ricini with Tinct. Opii, and Hydrarg. cum Cretâ with Pulv. Ipecac. C., until the stools became natural in consistence and appearance, except that they were always attended with a considerable discharge of blood. It was then observed that his legs and arms were covered with numerous petechiæ, and there were also broad patches of ecchymosis on the ankles and legs. His debility was at this time extreme, and one of the leech-bites on the abdomen had continued bleeding in spite of all attempts to stop it: but, upon the application of a small quantity of a powder, consisting of three parts of Calamine and one of the Nitric Oxyd of Mercury, the bleeding ceased immediately.

He had now given him an infusion of Mint and Cloves, with Sulphuric Acid. In the course of a few days, the intestinal hemorrhage had entirely ceased, the petechiæ and vibices were fast disappearing, and his strength rapidly returning. In less than a fortnight from the time of his commencing the use of the acid medicine, he was discharged from the hospital, convalescent.

*Remarks.*—If it be true that the proximate cause of purpura hæmorrhagica is a disproportion between the tone and strength of the capillary vessels, and the impetus of the blood which is circulating in them, we may conceive that such a state of the system may be produced—first, by an increase of

the force of the circulation, whilst the vessels themselves remain healthy; secondly, by preternatural weakness of the superficial vessels, without increase of the impetus of the blood; thirdly, by a concurrence of increased impetus with vascular weakness.

But, when we consider how seldom this disorder is accompanied with signs of excessive arterial action,\*—how much more it partakes of the nature of passive than of active hæmorrhage,—that it occurs principally in persons naturally weak, or in those whose constitutions have been left in a state of debility by previous acute or chronic disorders,—and that it is attended with extreme weakness and depression of spirits, it appears reasonable to dismiss from the question the first of the three states of the system which have been supposed, and to refer all cases of this disorder to one or other of the latter two. Indeed, it seems far more probable that increased momentum of the circulating system, unattended with general weakness of the containing vessels, should produce aneurism or hæmorrhage from rupture of the larger vessels, than that it should give rise to the petechiæ, ecchymoses, and general bleeding of purpura hæmorrhagica.

In fact, most cases of this disorder present unequivocal marks of venous congestion. It is possible that, in the production of the phenomena of the disease, congestion may be either a cause, an effect, or both. Obstruction to the circulation may act as a cause of sanguineous extravasation, and subsequently of vascular weakness; and, on the other hand, it seems not unlikely that congestion may be produced by a previous atony of the capillary vessels. Although, of all the viscera, the liver may be most frequently affected by derangement of the venous circulation, yet some pathologists appear to have gone too far in considering hepatic congestion as the sole cause of purpura hæmorrhagica. For disorders of other organs, as the spleen, the lungs, the heart, the brain, the uterus, may give rise to irregular accumulations of blood; and, in this disorder, deep-seated pains are felt in various parts, about the præcordia, and in the chest, the loins, and abdomen; and not merely in the epigastrium and right hypochondrium; and, although it is often attended with a constipated or irregular state of the bowels, yet at other times the functions of the intestines are natural. In a few instances, it is mentioned by Dr. BATEMAN that frequent syncope has occurred: in these, perhaps, the right side of the heart was the primary seat and origin of the disease.

Were hepatic congestion the sole cause of purpura hæ-

\* We subjoin an example of inflammatory purpura.

morrhagica, it would be difficult to account for such cases as the fatal one mentioned by Bateman, which came on during a severe salivation, accidentally induced by a few grains of mercury, given in combination with opium for the cure of rheumatism. It is worthy of remark, that purpura simplex, or hæmorrhagica, will often be found to precede or follow a severe attack of rheumatism. Dr. YOUNG has also recorded a fatal case, which apparently originated from the effect of a small quantity of the *pilula hydrargyri*.

In some cases of this disorder, the spleen has been found to be enormously enlarged. In others, it has been obviously connected with thoracic disease. BATEMAN mentions a case in which a fleshy tumor was found in the situation of the thymus gland.

Nothing, however, is more evident than that purpura hæmorrhagica may be produced by defective uterine functions. It has frequently followed amenorrhœa, and has been carried off by a severe catamenial flooding, or has ceased on the return of the natural discharge. Dr. YEATS has related, in the *Medical Transactions*, (vol. v.) the case of a young woman, in whom this disorder immediately ceased on the appearance of a menstrual discharge: it was remarkable that this discharge coagulated, thereby showing that blood, and not the natural secretion, was at that time discharged from the mucous lining of the uterus.

In some persons purpura has appeared to be the consequence of an habitual hemorrhagic tendency. A morbid weakness of the capillary vessels being hereditary in certain families, must therefore be a constitutional malady. In such persons, a slight touch on the skin will sometimes produce the ecchymosis of a severe bruise; whilst the bite of a leech, or the drawing of a tooth, may be followed by a fatal hemorrhage.

If the view which has been taken of the pathology of the disorder be correct, the following are obviously the indications for treatment,—viz. to diminish the force of the circulation, and at the same time to increase the strength of the containing vessels. Hence we may perceive the impropriety of two opposite plans of treatment, which have both been recommended, and both have been followed, though confessedly without success.

Dr. WILLAN indiscriminately recommended a generous diet, the use of wine, Peruvian bark, and acids. But there is reason to believe that such a stimulant system has often increased the hemorrhage to a fatal extent.

With respect to the opposite plan, that of bleeding, it is

probable that there are only two cases in which it is to be recommended: first, when the disorder is accompanied with active inflammation; secondly, when the hemorrhage is so alarming, and the congestion in some important organ (as, for example, the brain,) so apparent, that a revulsion is necessary in order to save the patient from the danger of instant destruction. In the first case, therefore, venesection is naturally requisite; in the second, it may be said to be allowable through necessity.

Probably, the best method of answering the first of the proposed indications, that of diminishing the force of the circulating system, without materially increasing vascular weakness, is by active and continued purging; a measure which is also particularly adapted for relieving that state of congestion which, in this disorder, is so common in the abdominal viscera. But, perhaps, the utility and necessity of purging have been somewhat over-rated by the advocates of the hepatic origin of purpura. In the first of the foregoing cases, purgatives were indicated by the state of the bowels and appearance of the evacuations; but, in the second case, in which the bowels were always open, and at first too much so, purgatives were unnecessary, and the cure was effected without them.

There are no medicines which appear to be so well calculated to answer the second indication—that of imparting strength to the vascular structure, as the mineral acids; for they are tonic without being stimulant, and at the same time, by their astringency, they are capable of restraining hemorrhage. In what manner the latter purpose is effected, appears to be somewhat doubtful. Dr. PARIS observes, that “astringents would seem to moderate the morbidly-increased secretions of distant parts, and to restrain hemorrhage, by their corrugating influence upon the primæ viæ, which is extended by sympathetic action to the vascular fibre.” But he adds, with regard to the effect of astringents on distant organs, that “it is a question whether, in many of such cases, the benefit arising from their use may not depend upon their tonic powers.”

But, whether its operation be of a primary or secondary nature, it is certain that the sulphuric acid is eminently useful in restraining the hemorrhage of purpura.

The cases of this disorder which are connected with amenorrhœa, appear to call for chalybeate and emmenagogue medicines. Unless the circumstances should require an absolute forbearance from every kind of stimulant, the Tinct. Ferri Murialis would appear to be a form well adapted for

such cases; for it is both tonic and styptic, and at the same time is said to exert a specific influence on the urinary and generative organs. In the first of the foregoing cases, this medicine was serviceable, combined with Digitalis; a form which, if it were not sanctioned by use, would seem to be almost like *contra-indication*. But in this case the pulse was exceedingly rapid, and it is possible that, by restraining the pulse, digitalis may increase the tendency to absorption, and thereby facilitate the admission of the accompanying tonic into the system.

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**Case of Purpura.** Treated by DR. CHAMBERS, at ST. GEORGE'S HOSPITAL.

THE following case illustrates distinctly the inflammatory nature of one variety of Purpura.

March 25, 1826.—Mary Sibbett, aged sixteen, from Chelsea; of fair complexion, and flabby habit of body. Has spots of purpura on the legs, thighs, and fore-arms; and, on the right arm, some appearance of erythema nodosum. Pulse full and frequent; tongue clean; bowels open; urine natural. The catamenia have not yet appeared.

She has been ill nine months with repeated crops of hemorrhagic spots. She says they appear first like elevated pimples, and after a day or two put on their present aspect. She attributes her complaints to her having drunk (just before her first attack) cold water when she was very warm. She has taken opening medicines, with relief.

Fiat V.S. ad  $\frac{3}{4}$  x.—Sumat Infus. Rosæ  $\frac{3}{4}$  jss. c. Magnes. Sulphat.  $\frac{3}{4}$  ij. ter die.—Applicetur Lotio Spirituosa ( $\frac{1}{4}$  spirit.) partibus affectis.—Dieta sit lactea.

April 14th.—The blood drawn on the 25th was very slightly inflamed, the coagululum being mottled on its surface. The spots faded on the 27th, and again returned on the 4th of April, with blood in the urine and stools. She was then purged with calomel, followed by sulphate of magnesia; and next day, the pulse having become full, though soft, and the abdomen tense, she was bled to the extent of eight ounces, in addition to the purging, which was repeated. After the venesection, the pulse became small and very frequent, and she continued very weak; a few spots appearing and disappearing from time to time. To-day, however, she complains of sickness, and severe pain and tenderness and tension across the umbilical portion of the abdomen. Motions very green; pulse 110, sharp; tongue furred, but moist; skin cool, very pale.

Fiat V.S. ad  $\frac{3}{4}$  x.—H. Sal. effervescens c. Liq. Opii sedativ. m. iv. quartis horis.

15th.—Blood highly inflamed. Pain relieved by venesection, but the right iliac region is still very tender and tense. Pulse 110, sharp; tongue cleaner; skin warm; bowels open; nausea.

Repet. VS. ad  $\frac{3}{4}$  x.—Peractâ venæsectione sumat Liquoris Opii sedativi m. xxv. ex Haustâ effervescente; et postea Haust. efferves. c. Liq. Opii sed. m. v. et Tinct. Digitalis m. x. sextis horis.—Dieta sit lactea.

26th.—The blood taken on the 15th was not inflamed, and the pain and tenderness were relieved; but, as they returned next day, sixteen leeches were applied to the abdomen; and, on the 21st, twelve ounces of blood were taken from the arm, in consequence of the pulse rising to 110, and becoming full and sharp. The purgatives have been continued. No new spots have appeared since the last report, *and she is now free from complaint.*

May 15th.—She remained pretty comfortable until the 12th instant, occasionally showing a few spots of purpura on the legs, which were immediately removed by calomel, with cathartics. On that day, however, she was attacked with violent pain in the occiput and back of the neck, accompanied with sense of throbbing in the head, and aggravated by the slightest motion, and attended also with occasional delirium. The pulse was small, frequent, and soft; skin warm and dry, but the countenance was pale and æucophlegmatic; the tongue slightly furred, but quite moist; and the bowels torpid.

She was twice cupped, and had leeches applied twice to the head. She had a bladder of ice constantly placed on the head, and blisters to the nape of the neck.—Purgatives, with Calomel, were freely administered, together with Digitalis, Tartarised Antimony, and Opium, with very little advantage.

—She became comatose this morning, her pupils being dilated; and died this afternoon.

*Sectio cadaveris, (next day.)—Abdomen:* Some of the convolutions of the small intestines conglutinated by perfectly formed adhesions, (evidently the produce of the inflammation of the peritoneum, which had been relieved by the treatment recorded in the earlier part of the history of the case.) No other abdominal disease was discovered.

*Thorax:* About an ounce of serum in the bag of the pericardium. The left ventricle of the heart dilated to nearly twice its natural size. The muscular parietes attenuated; one or two of the carnæ columnæ, however, seemed thickened. In the interior of the left auricle was observed a growth of a condylomatous character, of three-fourths of an inch in diameter. The mitral valve was much thicker than natural, but was not ossified.

*Head:* The whole arachnoid membrane, on the upper and back part of both hemispheres of the cerebrum, was covered with a lamina of coagulated lymph, evidently the product of the inflammatory attack which destroyed life.

## FEVER.

*Some Cases of Fever, treated upon the Principles lately explained\**  
by Dr. HEWETT, Physician to ST. GEORGE'S HOSPITAL.

CASE I.—William Noble, aged fifteen, was admitted into St. George's Hospital, on Saturday, the 15th August, 1826. The only information, left by his uncle, was that he had been ill with fever for five days, and delirious for the last three days.

Present symptoms are—a great prostration of strength, flushed face, but the pupils of the eyes are contractile; soft and feeble pulse, beating 120; dry, yellow, furred tongue; abdomen rather tense, and very tender in both iliac regions, but no complaint is made of pain there, except when pressure is forcibly applied; the skin is warm, but not pungently hot.

Applicentur Hirud. xx. abdomini quamprimum; postea descendat in thermas.—Hydrargyri Submuriatis, Pulveris Jacob. veri, aa gr. v.; Mucilag. Acaciæ q. s. ut fiant pilulæ duæ statim sumendæ; post tres horas sumatur Olei Ricini ʒss. et repetatur quartâ quaque horâ, donec plenè dejecerit alvus.—Hydrargyri cum Cretâ ʒss.; Pulveris radiciæ Ipecac. gr. j. M. fiat pulvis post catharsin sumendus, et repetendus ter die.—Radatur Capillitium et applicetur Lotio Spirituosa capiti.—Dieta febrilis.

13th.—Became very faint after the loss of blood by the leeches. Passed four evacuations unconsciously, and two this morning into the bed-pan. Was very noisy during the night. The face is still flushed; pulse is 120, very small, soft, and weak; skin of the body is warm, but that of the arms is cool; complains of great pain in his bowels when pressed upon, but not at other times; tongue is rough, brown, and dry almost to its edges, which are white and clammy.

Applic. Hirud. xij. abdom. deinde descendat in thermas; postea applicetur Emplastrum Lyttæ abdom.—Repet'. Pulvis ter die.

14th.—Is less delirious. Has passed three or four well-coloured evacuations, and none of them involuntarily; but the abdomen is still exquisitely tender; pulse is 132, very small, soft, and weak; tongue is rough and dry, and he has great difficulty in protruding it; skin is moderately warm; and there is some slight cough.

Repet' Pulvis ter die.—Haustus Salinus, Vin. Ipecac. m. xij. M. fiat haust. ter die sumendus.

—The uncle has this morning stated that his nephew walked with him to Islington on Sunday the 6th of August, but during the afternoon complained of great headache, and tottered, on his walk home, like a drunken man. His bowels were much relaxed, but not painful. He became delirious on Thursday the 10th of August, and remained so when admitted into the hospital.

15th.—Sulphat. Magnesiz ʒij. ex Haust. Salino statim.—Repet' medicam.

16th.—Five well-coloured evacuations. Tongue slightly moist; abdomen still very tender; pulse 120, small, soft, and weak.

Repet' medicam.

\* See our Number for September.

17th.—Delirium has entirely disappeared. Bowels are freely open; pulse 112, of better size and strength; says he has no pain whatever, except when pressed upon the body, and then only from the rawness of the surface occasioned by the blister; skin is moderately warm and moist.

*Repet<sup>r</sup> Pulvis, Hydrag. et Ipecac. horâ somni tantùm.—Repet<sup>r</sup> Haustus.*

18th.—Has no pain whatever, excepting that of blister. Tongue is moist and clean; appetite has returned this morning; gums are not the least affected.

*Cataplasma lini abdom<sup>i</sup> applicand.—Omit<sup>r</sup> Pulvis et Haustus.—Infusi Rosæ 3 x.; Acid. Sulph. dil. m. vj.; Syrupi Aurantii, Tr. Humuli, aa 3j. M. fiat haust. quater die sumendus.—Pulv. Ipecac. comp. gr. v. horâ somni.*

23d.—Pulse is about ninety, and every thing going on favourably.

*Sulphatis Quinæ gr. ij.; Extr. Gentianæ q. s. ut fiat pil. quartâ quâque horâ sumenda suprabibendo haustum nuper præscriptum.*

Went out cured September 5th.

CASE II.—Sophia Martin, aged sixteen, unmarried, was admitted ill with fever on the afternoon of Friday, August 11th, 1826.

A purgative dose of Calomel and Jalap was given immediately; and at night a pill, containing three grains of Calomel and the same quantity of James's Powder.—An evaporating lotion was applied to the head.

Saturday, August 12th.—Present symptoms are—flushed face; warm, but not dry skin; great pain on pressure of the abdomen, but at no other times; suffused eyes, but contractile pupils; tinnitus aurium; slight head-ache; no increased action of the temporal arteries; pulse 120, very soft; tongue and lips loaded with dark-brown fur; great deafness. She is quite incapable of giving the previous history of her symptoms. Her friends merely left word, that three weeks ago she caught cold, from remaining in wet clothes, during the catamenial period, by which the menstrual discharge was suddenly stopped; and that she has been very ill ever since.

*Applicentur Hirudines xxx. abdom<sup>i</sup> statim; postea descendat in thermas.—Hydragryri cum Cretâ 8aa.; Pulveris rad. Ipecac. gr. j. M. fiat pulvis ter die sumendus.—Haustus effervescentes cum Tartat. Sodæ 3 ij. quotidie circa meridiem sumendus.*

13th.—Was sleepless, but not noisy, during the night. The head, though still giddy when moved, is less so than yesterday. Bowels have acted freely; abdomen still very tender on pressure, but not painful at other times; pulse 120, soft; the black fur is breaking off from the lips and tongue.

*Hirudines xv. abdom<sup>i</sup> statim; postea thermas.—Repet. medicamenta.*

14th.—She slept tolerably well, but was occasionally noisy during the night. Abdomen is no longer tender. One well-coloured evacuation; pulse 112, soft; skin moist and moderately warm; tongue still furred, but improving.

*Repet. medicamenta.*



17th.—Bowels have been freely open, but the abdomen, though not tender, still feels tumid. Pulse 116, very soft. Mouth is beginning to be affected by mercury.

*Repet. Pulvis horæ somniantum.—Olei Ricini 3 iij. cras primo mane.*

18th.—Tongue is quite clean and moist; mouth is only very slightly affected. Several evacuations of well-coloured feculent matter, intermixed with white flakes; pulse 116, soft. She is still wakeful, but is obviously improving.

*Pulv. Ipecac. Comp. Sss. o. n.—Infus. Rosæ 3 x.; Acid. Sulph. dil. m. viij.; Syrupi Aurantii, Tr. Humuli, aa ʒj. M. fiat haust. quater die sumendus.*  
—Omittit alia medicamenta.

19th.—Appetite has returned, but she is still wakeful at night. Pulse 108, small and feeble. The sister now informs me that, within eight or ten days of her admission, she had been twice bled; that her illness commenced, at the time already stated, with rigors, head-ache, flushed face, delirium, severe pains in the bowels, and diarrhoea.

20th.—Sulphate of Quina was given in addition to the above draught, under which treatment she gradually recovered, experiencing, however, occasional returns of pain and tenderness of the abdomen.

CASE III.—Rebecca Stratton, aged seventeen, single, was admitted July 20th, 1825; but could give no further account of herself than that she was attacked, four weeks ago, with a cold fit, followed by headache. She delivers her answers very slowly. Tongue is moist, and skin natural. State of bowels is unknown, but abdomen feels full and loaded.

She was purged with Calomel and Rhubarb.

21st.—Passed a noisy night, crying out, she said, from pain in the head and body. The pupils of the eyes are much dilated, and scarcely contract on the approach of a candle close to them; face and lips pallid; tongue nearly clean; pulse very frequent and feeble; moans on pressure of the abdomen.

*Applicetur Emplastrum Lyttæ nuchæ.—Hydrar. cum Cretâ gr. v. ter die.*

22d.—Slept quietly; but pupils are still dilated and torpid, conjunctiva slightly vascular, and temporal arteries acting with some strength. The pulse is 120, soft and small; the evacuations are liquid, and free from blood; skin is moderately warm; moans on pressure of abdomen.

*Applic. Hirudines xij. fronti, postea Lotio Spirituosa.—Hydrargyri cum Cretâ Sss. ter die.*

23d.—Still shrinks on pressure of the abdomen, but slept quietly.—A female friend came to-day from Battersea to see her, and stated that, on the 11th July, Rebecca Stratton was brought to her house in a coach; that she was suffering from violent head-ache and fever; that a medical gentleman gave her some opening medicines, applied a blister to the nape of the neck, and, after a week, allowed her a gill of port-wine daily. She used to complain

of much pain in her bowels, had frequent evacuations, and occasionally passed blood in them.

*Repet. medicamenta.*

27th.—Pupils slowly contractile, but the light is still painful to her eyes. Bowels have been kept freely open. She still winces on pressure of the abdomen. Pulse 100, soft and small.

*Hydrargyri cum Cretâ Æss. quater die.*

28th.—Pupils becoming still more contractile. Tongue is clean, but abdomen is still tender.

*Repet. Hydrargyrum ter die.*

August 1st.—No remains of head-ache; has recovered her appetite; but still the right eye cannot bear a strong light.

*Repet. Hydrargyrum o. n.*

3d.—Gums are slightly tumid and tender; pulse is small and feeble; but she is going on well in all respects.

*Omitt. Hydrargyrum cum Cretâ.—Sulphatis Quinæ gr. ij.—Ext. Anthe- midis q. s. ut fiat pil. quartâ quaque horâ sumenda.*

8th.—Was allowed a small quantity of meat and wine; and went out cured August 14th.

CASE IV.—Esther Stokes, aged seventeen, unmarried, was suddenly seized, May the 12th, with the usual symptoms of fever; on Sunday the 14th, took to her bed, with violent headache and hot skin; and, in four days more, became delirious and very noisy. No further information was left at the hospital by her friends respecting her.

May 24th.—She is at present almost in a comatose state, but moans if forcible pressure is applied to the abdomen, which is tense. Urine and fæces have been passed involuntarily; the pupils of the eyes are dilated, but the face is not flushed, nor is there any increased action of the temporal vessels. Tongue is moist and clean; pulse is soft, small, and frequent; skin moderately warm.

*Radatur Capillitium statim, et applic. Hirudines xvj. frontis; postea applic. Glacies capiti.—Hydrarg. Submur. gr. iv.; Scammonæ gr. xij.; Sacchari albi q. s. ut fiat pulvis statim sumendus, et repetendus post sex horas.*

25th.—Remained quiet during the night. Several liquid and green evacuations. Abdomen is still tumid and tender. Pulse 116, soft and small; skin quite cool.

*Hydrargyri cum Cretâ Æss. ter die.*

26th.—Passed a noisy night, and is still delirious. The evacuations are passed unconsciously; abdomen is tympanitic and tender; pupils of the eyes are sluggish, but contractile; skin cool; pulse very frequent, small and feeble.

*Repet. Hydrarg. cum Cretâ Æss. o. n. et m.*

29th.—Has been noisy during the night. Face is flushed; pupils are again dilated. Four well-coloured and scarcely liquid evacuations. Abdomen still tympanitic and tender; pulse 144, soft and weak.

*Hydrargyri Submar., Pulveris Jacobi veri, aa gr. ij.; Ext. Hyoscyami gr. iv. M. fiant pil. duæ sextis horis sumendæ.—Haust. Aquæ Ammoniacæ Acetatis quater die.—Omittantur alia.*

June 1st.—Six evacuations in the last twenty-four hours; none of them passed unconsciously. Abdomen is becoming supple, and no longer tender; pulse 116, small and soft; warm universal perspiration, and very obvious general amendment.

*Repetr Pil. 8vâ quâque horâ.—Repetr Haustus.*

3d.—Has had scarcely any sleep, but was not the least delirious. Abdomen is still puffy, but not the least tender; gums are scarcely affected.

*Omittit Pil.—Repetr Haustus.*

5th.—Was rather noisy again during the night. Has had eight or nine liquid, but well-coloured evacuations. Tongue is quite clean and moist; pulse 116, soft and small.

*Sulphatis Quinæ gr. ij. in formâ pilulæ quartâ quâque horâ sumendæ, superbibendo Haustum seq.—Acid. Sulph. dil. m. iv.; Syrupi Aurantii 3 ij.; Tr. Cinnamoni 3 ss.; Aquæ Pimentæ 3 xj. M. Adde Tr. Opii m. v. haust. nocturno, si plus æquo soluta fuerit alvus.*

6th.—Slept well. Had three evacuations before, but none since the addition of the Tr. Opii.

Was afterwards allowed three ounces of port wine daily; left her bed on the 15th, and the hospital on the 19th of June, cured.

In the two first of the preceding cases, it was imagined that the disturbance of the cerebral functions was kept up by sympathy with the diseased condition of the intestines, rather than from any source of irritation, such as vascular fulness or slight effusion of serum, in the brain. The remedies, therefore, were directed principally to the relief of the bowels.

The degree to which the mucous membrane of the intestines was affected, seemed to be less advanced in the first than in the second case. The invasion of the fever was so recent in the first, that the injury inflicted upon the mucous membrane could hardly be supposed to have exceeded that of enlargement of the mucous follicles, combined with partial inflammation of the neighbouring exhalant surface. This supposed existence of inflammatory action in the mucous membrane, seemed to indicate that the period for active and repeated purging was passed, and led to the adoption of the line of treatment, the principles of which have been already explained.

In the second case, the period of the fever, and the combination of symptoms existing at the time of her admission, impressed me with the conviction (afterwards still more fully confirmed by the history of the symptoms subsequently obtained, and by the occasional returns of abdominal tenderness and irritation during the slow progress to a state of conva-

lescence,) that the structural lesion had advanced to the degree of the establishment of ulcerations in the mucous follicles, combined with partial inflammation of the contiguous exhalant surface of the intestines; the treatment pursued was in conformity with these views.

In the third case, the history of the previous symptoms, the dilatation of the pupils, the slowness and confusion of intellect, and the long-continued and severe headache, sufficiently show that the brain was directly suffering from pressure, either by effused fluid or vascular turgescence, in addition to the irritation transmitted to it by sympathy with the morbid (probably ulcerated) condition of the mucous membrane of the intestinal canal. The advanced stage of the fever, and the exhausted state of the patient, permitted the use only of mild measures: they were directed to the relief of the brain, as well as of the intestines; and it may be observed, that the mercurial treatment seems to have produced an equally beneficial effect upon both of these organs.

The fourth case affords an additional illustration of the same principles of treatment.

In all these cases it is sufficiently obvious that the period for the use of active purging was already past, at the time of their admission into the hospital. In the first case, this period had been unusually short, in consequence of the very early appearance of symptoms indicating some partial inflammations of the mucous membrane of the intestines.

It has been previously remarked, that the administration of powerful and repeated purgatives ought to be limited to the early stage of fever, and that the occurrence of symptoms indicating the existence either of ulcers or inflammation in the intestines demands their immediate discontinuance, and requires a corresponding variety in the treatment. But a bold and well-regulated succession of purgatives at the early period was strongly recommended, as affording the most effectual means of unloading the mucous glands, and thus anticipating the establishment either of ulcers or inflammation in the inner membrane of the bowels. To this system an objection, more specious than just, is sometimes urged,—viz. that this free use of purgatives frequently excites or accelerates the very evils, which it is intended to avert. The opponent undoubtedly has so far the advantage of position, that wherever, in fatal cases of fever, ulcers are discovered in the intestines *after* the purgative treatment above recommended, they may very plausibly be imputed to it; while its operation, where successful, necessarily destroys all opportunity of adducing any palpable anatomical evidence in its

favour. The fallacy, however, of this objection is easily shown; for a very limited experience in the dissection of those, who die the victims of fever, is sufficient to detect the frequent existence of such ulcers in the intestines, when only the mildest plan of treatment had been previously pursued. Thus a young girl, Caroline Spooner, was admitted into St. George's Hospital, on the 3d of August, 1826, in such a perfectly hopeless state of fever, that none but soothing measures were adopted. She died on the 6th August. I was indebted to the kindness of the medical gentleman, who had attended her, for the particulars of the previous treatment: they consisted of diaphoretics, occasional mild doses of blue-pill, and chalk mixture. Upon examination after death, the *small* intestines were found most extensively affected with follicular ulcers.

Henry Long, aged twenty-five, was admitted under my care on the afternoon of Thursday, August 24th, 1826, having been suddenly attacked with fever about fourteen or sixteen days previously. He had suffered much from headache, for which he had been twice bled: the pain was removed, but a constant giddiness remained. His bowels had been kept freely open, but by no means violently purged. Neither at the time of his admission, nor until the Monday afternoon, (although he had been daily submitted to forcible pressure of the abdomen,) did he acknowledge any pain, or even uneasiness, of the bowels; but, at four o'clock P.M. of Monday the 28th, he was suddenly seized, while passing an evacuation, with a most excruciating pain and exquisite tenderness of the abdomen: leeches and fomentations appeared to produce some little alleviation of his sufferings. On the morning visit of Tuesday, it was stated, and immediately recorded in the hospital case-book, that a perforation of the peritoneum had been effected by the progress of a follicular ulcer from the mucous membrane of the intestines, and that peritonitis had thus been excited. The circulation was then scarcely perceptible in the extremities, and he expired at half after two o'clock P.M. of Tuesday, the 29th. The *sectio cadaveris* took place on the following day. Upon opening the cavity of the abdomen, very extensive peritonitis was observed, and a follicular ulcer was discovered within three inches of the ileo-cæcal valve, perforating all the coats of the ileum. In its neighbourhood there was another ulcer, just upon the point of effecting the perforation of the peritoneum; and along the whole course of the ileum there were several similar ulcers, exhibiting the progressive stages of ulceration. The

specimen is preserved, and is ready to attest the accuracy of this statement.

It would be very easy, if it were not now both tedious and unnecessary, to accumulate examples of the frequent origin of these ulcers, during the progress of fever, in the mucous membrane of the *small* intestines, quite independently of any irritation produced by an abuse of purgatives.

September, 1826.

#### LOCAL IRRITATION.

*Case illustrating the Effect of Local Irritation, in exciting and maintaining a State of great Constitutional Derangement.* By H. EARLE, F.R.S. &C. (ST. BARTHOLOMEW'S HOSPITAL.)

WILLIAM FERREIN, aged twenty-three, a fine muscular young man, was admitted into Powel's Ward, at St. Bartholomew's Hospital, February 2d, 1826, on account of a disease of the thigh-bone, the consequence of a gun-shot wound. It appeared that his thigh had been broken by a musket shot, at Sencamporne in the East Indies, December 17th, 1822. The limb was set the following day, and the ball removed; and he went on well for six weeks, when, from some carelessness, the fracture was displaced. He went on shore at Calcutta; the bone was reset, and he continued slowly improving for six months, when abscess formed. Since that time there have been, at short intervals, repeated abscesses, accompanied with much constitutional disturbance. About the centre of the front of the thigh, where the ball entered, there is a large cicatrix, in the middle of which there was a fistulous opening. The thigh-bone at this part appeared much enlarged, forming an extensive bony case. A probe, passed into the fistulous opening, led into the centre of this bony case, but did not detect any portion of dead bone. The thigh had been extensively laid open at this part, without detecting any sequestra, or affording any relief.

After his admission into the hospital, issues were made in the neighbourhood of the supposed diseased bone, and his health strictly attended to. Under this treatment the opening closed, but repeatedly opened again, and gave vent to a thin semi-transparent discharge, almost resembling sinovia. During the formation of these abscesses, he suffered severely in his health, and had many severe rigors. He appeared, indeed, constantly suffering from the irritation of the affected limb, and greatly disposed to inflammatory attacks.

About the middle of May, he had a severe attack of acute rheumatism affecting all his joints, which receded, and fell upon his chest and diaphragm, requiring the most active treatment, with copious bleeding and colchicum. He suffered two relapses; and subsequently became subject to well-marked intermittent, which was relieved by bark and ammonia.

Worn out with such repeated severe attacks, he earnestly solicited to have his limb amputated. As the joints were still quite perfect, and the limb not much wasted, I was very unwilling to accede to his wishes; more especially as the enlargement of the femur extended nearly to the trochanter, and it would have been necessary to have amputated just below the joint.

Conceiving that there might be some portion of cloth, or other foreign body, keeping up irritation, I determined to make very free incisions in the limb, before I resorted to so severe a remedy as amputation. In examining the limb with much attention, I felt a very obscure, slightly elastic sensation, at the outer and lower part of the thigh. There was no swelling perceptible, but, on pressing firmly, it caused pain; and he said that he had often felt pain in that situation before, previously to the opening of the fistulous abscesses. This determined me to make a free and deep incision through the integuments and muscles: in doing so, I gave exit to a small quantity of a secretion, similar to that which flowed from the upper opening; and, on introducing my finger, I detected a large portion of dead bone quite loose. This was readily extracted, and subsequently two smaller portions. These several pieces of dead bone lay imbedded in a cavity surrounded by soft villous granulations, which cavity communicated by a small opening with the case of new bone above described. The larger portion consisted of the whole thickness of the walls of the femur, and about half its circumference, and was about two inches and a half long. It was quite bleached and inodorous, and did not bear the least appearance of having been touched by the absorbents. Excepting that it was beautifully white, it did not appear to have undergone any change from the moment it was splintered from the shaft of the bone. One of the smaller portions was a little grooved by the action of the absorbents. The wound was dressed with a little wet lint, and subsequently with bread-and-water poultice; under which it filled up with healthy granulations, and soon healed.

From the very day after the operation, all constitutional disturbance ceased; he rapidly regained his health and spirits, and was discharged quite well on the 11th of July, the operation having been performed on the 8th of June.

It rarely happens that we have more striking examples of the effect of mechanical local irritation on the constitution; nor do we often meet with cases in which the connexion between cause and effect are so unequivocally established, as in the one which has just been related.

28, *George-street*; October 10th, 1826.

## FOREIGN BODY IN THE BRONCHI.

*Case of a Boy, who recovered after a Cherry-Stone had remained sixty-eight Days in the Bronchi.* By JOHN WEBSTER, M.D.  
Physician to the ST. GEORGE'S and ST. JAMES'S DISPENSARY.

WHEN an extraneous substance is lodged in the trachea or bronchi, besides extraction by the operation of tracheotomy, there are three natural processes, by which it may be removed. It may be expelled by a violent effort of expiration; it may be got rid of by a process of suppuration, in which the abscess bursting externally, the foreign body is allowed to escape between the ribs; or it may be removed by an abscess bursting into the bronchi, and thus, along with the puriform fluid, it makes its escape by the trachea. This latter process was the one which took place in the case now to be detailed.

George R—, fourteen years of age, hitherto in the enjoyment of excellent health, accidentally swallowed a broken cherry-stone. Being at the moment frightened, it slipped into the trachea, when he was suddenly seized with a most violent fit of coughing, accompanied by great difficulty of breathing and a sense of instant suffocation. He had also severe pain, and a slight swelling, at the upper part of the trachea. The dyspnœa, pain, and coughing without expectoration, remained during the night; and next morning he felt as if the foreign body had descended into the chest.

Twelve days after the accident, the patient first came under my care, when he stated that the above symptoms had continued without intermission, and even in a more aggravated form; there was also a constant darting pain under the sternum, extending towards the left side. On sitting up, the difficulty of breathing and sense of suffocation were increased, and he could only lie on the left side.

From examination with the stethoscope, it appeared that the foreign body was situated in the left bronchus, at the bifurcation of the trachea, thereby obstructing almost entirely the passage of air into the left lung. On a further investigation, it was also ascertained that the lung was sound, though collapsed. By percussion on the left side of the chest, a deaf sound was perceived, but in the right cavity every thing seemed healthy. There was a constant palpitation of the heart.

Since the accident, the patient had never expectorated, excepting occasionally a little frothy mucus; and he passed very restless nights, being often affected with violent fits of coughing. Pulse 120, small and sharp; skin warm and moist; tongue clean and red; bowels open, but not regularly so; appetite bad; great thirst; urine scanty and high coloured.

Sixteen leeches, and afterwards a blister, were applied to the chest; besides which, a mixture, containing Squills, Nitrous Æther, and Tartarised Antimony,



Dr. Webster's *Case of Cherry-Stone in the Bronchi.* 431

was given three times a-day, along with three grains of Blue-pill and one of Ipecacuanha.—Very low diet, and absolute rest, were enjoined.

Sixteenth day.—The patient felt considerably relieved by the leeches and blister; but the cough, pain of chest, and laborious respiration, still continue. His nights are very restless, being frequently interrupted by violent fits of coughing, which are never attended with expectoration. Pulse full and quick; skin dry and warm; bowels open.

Was bled at the arm to six ounces; another blister was applied to the chest; and the same medicines continued.

Twentieth day.—For a short time after the bleeding, the patient was better; but now the symptoms are nearly as before. He has but little sleep, and can only lie on his back, feeling as if about to be suffocated when he attempts to move.

Six leeches were applied to the lower part of the sternum, at the left side; and he was ordered the same mixture and pill, with the addition of half a grain of powdered Digitalis to each.

Twenty-second day.—Cough not so violent, but still frequent and coming on in fits; no expectoration, and the difficulty of breathing considerable. Pulse 120, full and rather hard.

Was bled in the arm to eight ounces; the same medicines repeated.

From this time to the sixty-eighth day, the symptoms varied very little, excepting that the patient was sometimes better than at others. The cough, though alleviated, never left him; and latterly he became so weak and exhausted as to be almost unable to move. The pulse continued constantly quick; and he had slight shiverings, indicating the formation of matter.

The stethoscope was frequently employed to ascertain the condition of the thoracic viscera, and on the thirtieth day the following is the report:—"On percussion, and on applying the cylinder, the air appears now to pass more freely into the left lung, particularly into the upper lobe; but the lower one is still further collapsed, which would lead to the supposition that the stone has descended lower into the bronchi, and, by thus freeing one of its branches, the air is allowed to pass into the upper lobe of the left lung with more facility than it did."

The same plan of treatment as at first instituted was pursued; the leeches and blisters were repeatedly applied; and the patient kept exceedingly low and tranquil. Early in the morning of the sixty-eighth day, he felt as if about to be suffocated, with pain extending to the upper part of the neck and left shoulder, followed by sickness and violent fits of coughing, whereby he expectorated more than a pint of fetid pus, mixed with streaks of red blood, and in the midst of which was found the broken cherry-stone. Great exhaustion followed the effort of bringing up so large a quantity of matter, and, for an hour afterwards, life appeared to be nearly extinct. During the day he became more easy, being nearly free from pain, with scarcely any fever or cough: his pulse was ninety-five, and soft; and his skin cool.

A blister was applied to the sternum. Squills, Nitrate of Potash; and Rhubarb, were given every eight hours. He was allowed a little beef-tea, and wine and water, and ordered to remain perfectly quiet.

From the time the stone was expelled, the patient gradually recovered; and, although he spit pus copiously for about a week, he was so well as to be able to walk in the Park on the twentieth day; and, on the ninetieth from the accident, he left town perfectly convalescent.

This case seems to lead to some useful practical conclusions. It shows the importance of diminishing inflammatory action, and of alleviating urgent symptoms, more particularly where it would not be advisable to perform tracheotomy, with a view to extract the foreign body. It also affords an additional and beautiful illustration of one of the processes which nature employs to get rid of an extraneous substance lodged in the bronchi: thus, local inflammation was excited, pus formed around the cherry-stone, and, as soon as a sufficient quantity became collected, the abscess burst, when, by the violent rush of fluid and strong effort of expulsion, the foreign body, the cause of all the mischief, was ejected.

Regarding the propriety of performing tracheotomy in this case, it was the opinion of Dr. GREGORY, Messrs. LAWRENCE, WARDROP, BACOT, and others, who met in consultation, that it would not be an advisable measure; unless the patient should be threatened with impending suffocation, so as to put his life in imminent danger, under which circumstances it ought undoubtedly to be performed: and the successful termination of the case justified the practice which was adopted.

Grosvenor-street; October 1st, 1826.

#### POLYPUS OF THE UTERUS.

*On the Separation of the Neck of Polypus of the Uterus, after the Removal of the Body of the Tumor.* By THOMAS ARTHUR STONE, Member of the Royal College of Surgeons; Surgeon to the BROWNLOW-STREET LYING-IN HOSPITAL, &c.

THE relation of individual facts may perhaps appear in themselves unimportant, and deserving of but little attention; but, as all our knowledge upon every subject must depend upon an accumulation of such facts, it will, when attentively considered, be found of great moment to record whatever may add to our stock of information on any particular disease, or may tend to show the methods which is instituted by nature to free the body from complaint. It is on this account that the writer of the present paper has been induced to offer the following remarks, in which he will endeavour to prove

that, after the removal of firm polypous tumors, *attached by a narrow neck* to the uterus, although the greater portion, or the whole, of the peduncle by which they were connected should remain above the ligature; yet that this will be separated by the action of the absorbents of the uterus, the organ itself being subsequently left in a healthy state.

The different diseases by which the uterus is affected are now so much better understood,—their diagnostic marks so much more clearly established,—and their method of treatment, in consequence, so much improved, that no apology will be required at the present day for bringing this subject forward.

This separation of the neck of the polypus from its attachment, has been stated above to occur when the tumor is firm, and attached by a narrow neck: it will not, however, be found to take place in those cases where the tumor is of softer consistence, and where the attachment to the uterus is nearly of the same diameter with the tumor itself. Here it appears that the whole or the greater part of the uterus is involved in the disease; and, although a tumor of a very large size should be removed, yet, in the course of an exceedingly short time, another of equal dimensions will be found to have been protruded from the uterus into the vagina, occupying its place.

In the year 1816, a large tumor, resembling polypus, but softer in consistence, and having an attachment to the uterus of nearly equal breadth with the tumor itself, was removed by ligature from a lady, of about thirty-six years of age. The symptoms disappeared; but in the course of eighteen months they returned, when it was ascertained, by examination, that another tumor of the same consistence, and what at this time nearly filled the vagina, had protruded through the os uteri. This was also removed, and the symptoms again disappeared. In less than four months, however, they returned; another polypoid tumor, of the same size and character, having descended into the vagina. A ligature was applied round its neck, and in the course of a few days it came away; but, in less than a fortnight afterwards, the symptoms, which had at first diminished, although they never disappeared entirely, having again become severe, an examination was made, and another tumor, equally large and soft, was again discovered, filling completely the vagina. A ligature was also applied round this tumor. The neck of the tumor was soon cut through, and it came away in about four days, but the patient did not long survive.—The first of these tumors, which was removed in the year 1816, and the two last, were preserved, and are now in the collection of the author of this paper.

In such a case, it would *certainly* be right to remove the tumor, although we may expect a recurrence of the com-

plaint, in the same way that it would be right to remove the cauliflower excrescence of the uterus, *when this has attained a very large size*, and, by the quantity of the watery discharge which it occasions, is threatening the life of the patient, although we are equally sure that the disease will return. In neither case do we expect to free the patient from her complaint, yet in both we may be able to prolong her existence.

Where, however, the tumor of polypus is firm in substance, and adheres by a narrow neck, then we may venture to promise a perfect removal of the disease, and we may be enabled to give great comfort to the mind of the patient, by pointing out to her that there is no fear of its recurrence. It has happened to the writer of this paper to be engaged in the removal of many polypi from the uterus; and it was observed by him, after the application of a ligature round the neck of the tumor, that in some instances, on the tumor coming away, the neck was only partially cut through at the part where the ligature was applied; and that, in these cases, the tumor had been separated from its attachment by the action of the absorbents, so that a portion, which was situated above the application of the ligature, came away. Of this occurrence a preparation is in the possession of the author, where the polypus is suspended in the spirit by the very ligature which was applied; which, of course, could not have happened, had the ligature entirely cut through the neck of the tumor.

The following case, also, which occurred in a patient of the St. George's and St. James's Dispensary, and on whom the operation was performed by my friend Mr. BLADEN, in presence of Mr. JEFFREYS and myself, will also illustrate this point.

Mrs. Buckle, aged forty-seven, had been suffering from discharge, occasionally coloured, for two years. It sometimes happened that large coagula of blood were voided. The menstruation had ceased for about a year before the discharge occurred. On examination, a polypus, about the size of a plover's egg, was found in the vagina; the neck being surrounded by the os uteri. On the 8th of August, 1819, a ligature was passed round the tumor, and fastened by means of the common canula. On the two succeeding days it was tightened; and on the third the tumor came away with the canula, the ligature still remaining upon the neck of the tumor, and there being a portion, of the extent of half an inch, above that point of the peduncle round which the ligature had been applied. In the course of a short time the discharge ceased, and the woman recovered. At the end of a month, I examined the os uteri, which appeared in a perfectly natural state.

In this case it is evident that the separation of the tumor from its attachment was influenced by the application of the

ligature. But, as in other cases it is found that the neck of the tumor is cut through, and that in consequence the polypus is separated at the point where the ligature is applied, and not from its attachment to the uterus; a question next arises as to what becomes of the portion which is above the ligature in these cases: whether this is capable of giving rise to another polypus or not. This question appears to be set at rest by the following case.

A poor unmarried woman came to town for medical advice in 1817. She had laboured for many years under profuse discharge from the vagina, the cause of which had not been ascertained. She applied to Mr. CHARLES CLARKE, for his opinion, and he discovered what was the real nature of her disease,—a large polypus, as big as a child's head at birth. At this time she was extremely reduced, being almost entirely drained of blood, and suffering from symptoms of dropsy. The polypus was removed; but the woman was attacked by symptoms of peritoneal inflammation, and being unable, from her debilitated state, to bear the necessary remedies, she died. On examining the body, I found in the abdomen strong traces of peritoneal inflammation. Having brought away the uterus, in order to examine it more leisurely, I found the os uteri somewhat more dilated than usual, but otherwise in a natural state. The neck of the tumor, which was of a very small size compared with the tumor itself, (it having been contained in the uterus, whilst the tumor was allowed to expand in the vagina,) was still attached to the fundus of the uterus, but the point of attachment was exceedingly small, being very much thinner than any other part of the neck of the tumor, and nearly separated from the uterus; the absorbents having been excited to action by the removal of the bulk of the tumor.—The preparations of the polypus and of the uterus are in the author's collection.

It appears, then, from the cases which have been detailed, that, after the application of a ligature to a polypus which is firm in substance and has a narrow neck, the portion above the ligature is always removed by the absorbents of the uterus, this process being sometimes completed before, and at others not till after, the coming away of the ligature. But, having stated the grounds on which this opinion is founded, it is not the intention of the writer to attempt any explanation of this separation taking place. Indeed, in the present state of our knowledge, when the causes which give rise to polypi, and the manner in which they originate, are not understood, it is not likely that any explanation that would be deemed satisfactory could be offered. At the same time, however, the knowledge of the fact itself may perhaps be productive of advantage, as far as regards the prognostic to be given with respect to the

return of the complaint after the application of a ligature for the removal of the *real polypus*, or the *soft polypoid* tumor from the uterus.

26, Argyle-street ; October 1826.

#### SYPHILIS.

*Cases of Syphilis, treated with Scruple Doses of Calomel*, by Mr. BOYLE, Surgeon to the MIDDLESEX INFIRMARY.

I.—HENRY PITT, ætatis eighteen, a young man of delicate and slight habit, came under my care as a patient of the Middlesex Infirmary, on the 17th June, 1826, for the treatment of a venereal chancre situated behind the corona glandis superiorly, and a small but painful bubo in the right groin. Had been taking mercurial pills for four days, but the mouth was not affected.

Gave him a scruple of Calomel, with one grain of Opium, at bedtime.

18th.—Mouth sore; chancre evidently improved in appearance; bubo stationary. The bowels had been moved twice in the morning, without griping or uneasiness.

19th.—Chancre improving in appearance; state of the mouth and bubo stationary.—No medicine.

20th.—Chancre healed; mouth more tender; the bubo, however, notwithstanding the early and continued use of the ordinary repellent measures, is larger: the fluctuation of matter is distinct, and the skin in the centre has become thin, is peeling off, and appears about to break.

Moxa to be applied round the base of the enlarged glands, followed by the application of adhesive straps over the part.

21st.—Bubo evidently diminished in size; state of the mouth the same as it was yesterday.

Blue-pill and Antimonial Powder, of each two grains, night and morning.—The moxa and straps to be continued.

22d.—Bubo much reduced, the matter being all absorbed, leaving a depression in the centre, marking the situation previously occupied by it.—The moxa, straps, and blue-pill, were continued till the 28th, when the patient was discharged cured.

II.—C. C. consulted me on the 26th July, 1826, respecting a sore, about half the size of a sixpence, situated outside of the prepuce, on the left side of the penis. His statement was, that a few days after connexion with a suspicious person, he observed a small pustule containing matter, and, apprehending that it was syphilitic, he applied caustic, which was productive of the sore described. From this account, and the appearances which the sore then exhibited, I hesitated to administer mercury, and advised a trial of local measures. Accordingly, the black wash, the red precipitate ointment, and other applications, were employed; and the patient lived temperately, and took alterative medicine: the sore, however, remained stationary as to size, and acquired a hard cartilaginous margin. It was now (after a week's trial of the above means) irritable, and bled on being touched. Considering it imprudent

any longer to withhold the use of mercury, I ordered a scruple of Calomel, with a grain and a half of Opium, to be taken going to bed. On the following morning, the mouth was slightly affected, the bowels had been twice opened, and the sore was cleaner. No medicine was then ordered; but on the following evening, the mouth being nothing more affected, the dose was repeated.

On the next day, the mouth was more affected, and the sore, which was covered by a healthy-looking matter, exhibited, on being washed, numerous granulating points. The bowels on this occasion were not once moved.

Four days after the second dose, the sore was healed; but, the action of the scruple doses having been then somewhat lessened, the patient was ordered to take Blue-pill and Antimonial Powder, of each three grains, for a few days after.—This gentleman had been treated in the manner above stated for a similar affection in 1822.

III.—Mr. — came to town for advice on the 23d of August. He had a well-marked chancre, of the Hunterian character, situated between the frenum and glans on the left side of the penis. This gentleman, whilst in the country, had tried caustic and various other applications to no purpose, for a period of a fortnight. The sore was still of moderate size, had a hardened base, and bled on being touched.

A scruple of Calomel, with a grain and a half of Opium, going to bed. No dressing except dry lint.

24th.—Had one copious evacuation without griping. Mouth slightly affected; chancre cleaner, red, and healthy looking.

25th.—Mouth not quite so tender; sore improving.

The Calomel and Opium, to the same extent, to be repeated going to bed.

27th.—Mouth more affected; sore cicatrising.

28th.—Chancre skinned over; state of the mouth stationary.

To have two grains of Blue-pill, and an equal quantity of Antimonial Powder, night and morning.

On the 30th, the mouth becoming more affected than was deemed essential, the medicine was altogether left off. In this case, as well as in the preceding one, the bowels were not once moved by the second dose, but continued regular throughout the treatment.

It will be manifest that the exhibition of the blue-pill and antimonial powder, practised in the foregoing cases, was to keep up the action excited by the scruple doses of calomel, for a reasonable time after the healing of the sores, and thus avoid the possibility of producing unnecessary effects by the introduction of another large dose of calomel. This modification in my practice of treating syphilis by large doses of the submuriate of mercury, as laid down in my treatise on that subject, I have followed from the time of its publication; and the results have been uniformly satisfactory.

4, Cleveland-square, St. James's; Sept. 2d, 1826.

## FRACTURE OF THE LEGS.

*Case of Compound Fractures of both Legs, in which a Bitter Infusion was used as a Lotion, with a view of preventing the formation of Maggots. Treated by Mr. ROSE, at ST. GEORGE'S HOSPITAL.*

HENRY DANIELS, a lad of fourteen years of age, was brought to St. George's Hospital, on the 24th of last July, with compound fractures of both his legs. He had fallen from a high branch of a tree, by which he had fractured the tibia and fibula of his right leg, nearly in the middle of these bones, and produced a lacerated wound of the soft parts on the fore part of the limb, opposite the interosseal ligament. This wound was at least four inches in length; its edges were separated to some extent, and could not be approximated; and about two inches, or rather more, of the tendon of the tibialis anticus, were torn from amongst the fleshy fibres of that muscle, and lay exposed in the wound. He had fractured the tibia of his left leg, also in its middle, and the fibula of that leg nearer the head of the bone. There was in this, as in the other limb, a very extensive lacerated wound of the integuments, in the same situation, and nearly, though not quite, so large as that in the right. In both legs, the fasciæ covering the muscles, and parts of the muscular fibres, were wounded and torn; but it was not ascertained whether this had been produced by any protrusion of the fractured bones, or by parts of the tree in his fall. The bones did not protrude when the boy was brought to the hospital, and he was too much alarmed and agitated to give any satisfactory account of what had taken place. The appearance of the wounds might be accounted for upon either supposition.

At the time of his admission, the wounds were bleeding freely. A thin piece of lint was laid over each of them, and they were afterwards covered with compresses moistened with infusion of quassia. The patient was laid on his back, and the limbs were placed in junks, by which the fractured bones were kept in proper apposition. The quassia was used in the hopes of its preventing the flies (which, in the excessively sultry weather which then prevailed, abounded in the wards,) from depositing their larvæ on the bandages and compresses, which were necessarily soon soaked with the blood and serum oozing from the injured parts. It fully answered this purpose, and, by so doing, contributed to the favourable result of the case.

The inflammatory fever was moderate, and the bandages and dressings were kept constantly wet with the same infusion, and were not removed until the 14th of August, three weeks from the time they were first put on. There was then complete soft union of all the broken bones; the ulcers in both legs were clean and healthy, covered with large spongy granulations, such as might be expected from membrane or bone. Splints and common rollers were applied; and on the 6th of September he was dismissed, the fractures being firmly united, and the wounds very nearly healed.



From the copious oozing of blood and serum in the first instance, and the discharge of fetid pus which afterwards took place, it would not have been easy to prevent the formation of maggots, if the common cooling lotions had been used; and, though the patient's age was very favourable, so speedy a cure could not have been expected, if any circumstance had rendered it necessary to disturb the fractured bones at an earlier period.

#### TRAUMATIC ERYSIPELAS.

*Cases of Traumatic Erysipelas, with Constitutional Disturbance of various degrees, successfully treated by Mr. TRAVERS, at St. THOMAS'S HOSPITAL.*

CASE I. (*Symptoms moderate.*) *Erysipelatous Inflammation, and Chain of Abscesses, of the Leg and Thigh, following a lacerated Wound of the Toes.*

JUNE 27th, 1826.—Dagleish Forster, ætatis twenty-one, a muscular man, of healthy appearance, was admitted into St. Thomas's Hospital, with a wound, one inch and a half long, at the root of the second and third toes of the right foot, inflicted by two deals which had fallen upon them. Adhesive plaster was applied, and the wound was granulating.

July 6th.—Was this morning attacked with pain in the head, sickness, and a shivering fit followed by a hot paroxysm. An erysipelatous redness appeared at the instep and shin, which in the course of the day extended rapidly up the leg. He complains of great pain in the head. The bowels have been very costive for several days past.

To take the house-physic, and apply a poultice to the wound.

8th.—The redness is still extending; the sickness and fever continue.

R. Mist. Potass. Citrat. cum Liq. Ant. Tart.

10th.—The erysipelatous redness extends up the leg and thigh, principally on the inner side, following the course of the absorbents; there are two or three enlarged and inflamed glands at the inside of the knee and in the groin; the leg and thigh are swollen, tender, and painful; he complains of much pain in the head, and deafness; he has sickness, pain in the abdomen and tenderness on pressure, particularly about the epigastric region; the pulse is 120 in the minute, full and soft; the tongue is loaded with a thick yellow crust, the skin hot and dry; his sleep is much disturbed; great thirst. The bowels have been much relaxed by the medicine.

R. Mist. Camph.  $\frac{3}{4}$  jss.; Liq. Ammon. Acet.  $\frac{3}{4}$  ss. M. sexta quaque horâ sumend.—R. P. Opii gr. j. omni nocte.

12th.—Rather better. The erysipelatous inflammation has not extended, and the pain in the head has abated. There yet remains considerable tenderness of the abdomen; the bowels again confined.

Hyd. Subm. p. et statim.—Haust. Sennæ post quater horas.—R. Antim. Tartar. gr. j.; Aquæ distil. § iv. M. sumatur coch. j. amplum secunda quaque horâ.

15th.—Inflammation has subsided. An abscess has formed at the calf, where fluctuation is obscurely perceived: on puncturing it, a quantity of pus, with shreds of dead cellular membrane, escaped. There remains great swelling of the limb. General health improved; no pain; tongue cleaner and moist; pulse frequent, small and soft; spirits much depressed.

R. Dec. Cinchon. ʒjss.; Acid. Nitric. dil. m. v. M. ter die sumendus.

19th.—A second abscess, which had formed at the inside of the leg, was this day punctured. A circumscribed blush of inflammation appears upon the inside of the thigh.

22d.—Two more abscesses opened at the inside of the leg. His spirits improved; sleeps well; has a good appetite.

R. Extr. Cinchon. ʒj.; Dec. Cinchon. ʒx.; Tinct. Ejusd. Co. ʒj. M. ter die sumend.—Mutton-chop and porter daily.

27th.—The wound of the toes is foul, with slight surrounding inflammation.

Applicetur Catap. cum Lotion Acid. Nitric dil.

—An abscess opened at the inside of the thigh, and another at the inner ankle.

August 5th.—The abscesses are all quite healed: health and strength daily increasing.

September 13th.—Progressively improved from the date of last report. A small portion of the first phalanx of the third toe exfoliated. Wound healed; health entirely re-established.

*CASE II. (Symptoms severe.) Inflammation of the Arm and Fore-arm, with Suppuration and severe Disturbance of the Constitution, following Contusion of the Elbow.*

June 1st, 1826.—Thomas Stephens, hackney coachman, ætatis forty-five, admitted with a large abscess of the left arm and forearm, extending above and below the elbow-joint. The patient is stout and muscular, accustomed to the free use of porter and spirits, but has good health. On the 26th May, while in the act of mounting his coach-box, he fell backwards, and struck his elbow against the pavement. This was followed by great pain and inflammation of the arm, but he continued to follow his occupation till the 29th, when the pain became so severe that he was compelled to desist. He then applied a bran-poultice, and kept his bed till his admission.

Fluctuation very evident on the radial side of the forearm, which is much swollen, and of a regular and intense redness. The inflammation extends to the middle of the arm. A free opening was made through the integuments and fascia, allowing the escape of a great quantity of pus, with shreds of sloughy cellular membrane.

Apply a roller lightly above and below the opening.—Catap. Lini c. Fol. Papav.—Sumatur M. Sennæ C. pro re nata.

June 2d.—Tongue slightly furred; pulse quick. Does not complain of any uneasiness except in the arm.

3d.—The discharge of pus from the wound copious and healthy. A sinus extends above the elbow, communicating with the wound in the forearm. Tongue still furred, but no other constitutional symptoms; bowels open.

5th.—Last evening he was delirious: complained of great pain in the head and in the inflamed parts, which were much swollen. Was continually getting in and out of bed, but laid quiet when spoken to, and was at intervals rational. Countenance pallid and anxious; respiration hurried; pulse slow, soft and feeble; skin cool and moist; bowels open. Ordered by the apothecary, Mist. Potass. Citrat. cum Liq. Antim. Tart.—This morning the symptoms, as above described, continue. An incision has been made in the arm above the outer condyle.

R. Ammon. Carb. gr. v.; Dec. Cinchon. ʒjss.; R. Ejusd. ʒij.; Tr. Opii, m. v. M. sextis horis sumend.—Omit the Saline Mixture.

6th.—Slight delirium; no pain in the head; feels very faint and weak; pulse seventy, full and soft; tongue yellowish white; slight thirst; sleeps very little.

7th.—Pulse eighty, greater fulness and strength; tongue moist, white centre, clean edges; bowels confined; has slept several hours. Has less wandering, and his countenance is tolerably composed; there is also less irritation about the arm.

R. Ol. Ricini ʒvj. statim.—Cerev. Oj. per diem.—Repr̄ alia.

8th.—Continued improvement. Copious and healthy discharge from the arm.

10th.—Very weak. The redness and swelling of the arm have quite subsided; the discharge is less, and the wound is rapidly healing.

28th.—Left the hospital in tolerable health and strength, the arm being quite sound, but very weak.

CASE III. (*Symptoms very severe.*) *Erysipelatous Inflammation of the Right Upper Extremity and Side, following a Fracture of the Metacarpal Bone of the Right Thumb.*

December 4th, 1824.—Jeremiah Duggin, ætatis sixty-three, an Irish labourer, living very freely and irregularly, was admitted into St. Thomas's Hospital, with a fracture through the middle of the metacarpal bone of the right thumb, produced by falling on his hands from a scaffold. Considerable swelling and tension followed the injury, but the displacement of the fractured portions and the crepitus were distinct. Twenty leeches were applied immediately, and afterwards a poultice with Goulard's wash; and he was ordered Pil. Coloc. cum Cal. gr. v. h. s. and house-physic in the morning. The swelling gradually subsided.

8th.—Two small splints were applied to the thumb, and bound on with a roller.

10th.—A slight blush of inflammation about the right elbow-joint. Patient's health appears to sympathise.

12th.—Swelling and redness much increased; pain very great; pulse 100, hard and sharp; tongue yellow; great thirst; skin hot and dry; bowels confined.

Remove the splints, and apply simply Cerat. Sapon.—R. Pulv. Scammon. cum Calom. gr. xv. statim sum.—Mist. Sennæ C. cras mane.—Hirudines xij. brachio admovend.—Catap. cum Lot. alb. (Liq. Plumbi Acet. dil.)

15th.—The swelling and redness have continued to spread both above and below the elbow. The whole arm and forearm, and a portion of the pectoral region, are now inflamed; the redness more intense in some parts than others, forming patches, with paler surrounding portions, so that the integuments have a variegated appearance. On pressure with the finger an indentation is made, which remains for some minutes. Above the joint where the inflammation first appeared, an obscure fluctuation is perceptible. Pulse 120, small and sharp; tongue very foul; thirst considerable. The bowels, which have been with difficulty acted upon ever since his admission, now require repeated doses of M. Sennæ C. before any effect can be produced. He complains of great pain in the arm, is very restless, and can get no sleep.

R. Infus. Rosæ ʒj.; Magn. Sulph. ʒjss. bis die sum.—P. Ipec. C. gr. x. omni nocte sum.—Applicetur brachio Catap. cum Foti Papav.

16th.—Fluctuation more evident in front of the elbow-joint, where an incision an inch long was made, from which serum only escaped.

17th.—A considerable quantity of serum has flowed from the wound; the surrounding inflammation has in some degree abated. The redness and boggy swelling has extended from the pectoral region as far down the side as the crista ilii. The man now appears sinking: the utmost anxiety is depicted on his countenance; the eyes hollow, the nose pinched; respiration difficult and hurried; the lips parched; tongue dry, and covered with a thick brown crust; pulse fluttering, and indeed scarcely perceptible; there is also a slight degree of comatose delirium.

18th.—Symptoms as above: redness of the side less intense. An incision, three inches long, through the integuments of the forearm, from the elbow downwards, exposed the fascia, which was sloughy, of a dull yellow colour: a small quantity of pus, and much serum, escaped.

R. Sp. Æther. Nitr. ʒj. cum Mist. Camph, ʒj. t. d. sum.—P. Opii gr. j. o. n.—Vin. rubri ʒvj. indies.—Omit the former medicines.

20th.—The discharge altered from serum to healthy pus, and in tolerable quantity. Has passed a better night, and is on the whole improved. Redness of side subsiding.

23d.—The wound at the bend of the elbow dilated, and the fascia at the side of the forearm divided, when a small quantity of pus escaped, and portions of dead cellular membrane. Has complained of slight sickness.

24th.—The sickness continues: dislikes his wine, which he refuses to take. Substitute for it brandy  $\frac{3}{4}$ iv. in the day.

25th.—A considerable quantity of dark-coloured blood escaped from the wound in the forearm,—perhaps a pint. The whole fascia and integuments of the forearm are elevated from the muscles, and distended by a highly fetid gas, and a sanious fluid mixed with coagula. The man has passed a sleepless night, and has vomited frequently: his general appearance is very unfavourable, and, from his having become weaker and more emaciated, he is thought to be even worse than on the 17th instant. The opening in the forearm was dilated from the elbow to the wrist, when a considerable quantity of sanies escaped: the wound was then covered with simple cerate, and a roller applied to the arm.

R. Haust. Salin. Efferv. cum Tinct. Opii m. x. sextis horis sumend.

26th.—General appearance rather improved. Has passed a better night; sickness less frequent; healthy pus is discharged from the wound; the surface of the exposed muscles is florid. Portions of sloughy fascia and cellular membrane, which were hanging loose, have been gently drawn out and cut off: the swelling of the upper arm subsiding. He has no appetite, but drinks freely of milk.

Habeat Aquæ Vitæ  $\frac{3}{4}$ vj. per diem.—Quinæ Sulph. gr. iv. ter quotidie.

From this time the improvement was progressive and rapid: the wound was covered with simple dressings, and the arm and forearm carefully rolled. Till January 1st, the discharge was very great, requiring fresh dressings twice daily: it gradually diminished, and on the 3d the integuments of the forearm adhered throughout; the edges of the wound, however, had retracted nearly two inches apart, exposing the extensor muscles of the hand: the exposed surface assumed a very beautiful appearance, small vessels carrying red blood shooting across from one side to the other, with at first apparently nothing to support them, but on the following day covered with a thin layer of semi-transparent lymph. On the upper arm, the integuments did not adhere so rapidly, in consequence of a collection of pus at the posterior edge of the axilla, the outlet for which was down the arm, through a canal beneath the fascia. This collection was opened on the 5th, allowing the escape of a quantity of very offensive pus and sloughs. The discharge then became more healthy, and continued for a few days, when the edges adhered.

February 6th.—The wound of the forearm has completely and firmly cicatrised: it is still covered with simple dressings, and rolled. The wound at the outer margin of the deltoid muscle, which had been healed more than three weeks, has become inflamed, and a blush of inflammation extends down the arm, accompanied by a thickened and indurated state of the integuments. On examination, a small opening was found in the cicatrix, through which a probe passed one inch and a half down the

arm : this sinus was dilated, and in a few days healed. By this his recovery was retarded, though for a short time only.

On the 17th March he was discharged, the arm being quite sound, and his health good.

#### VENTRAL HERNIA.

##### *Case of Strangulated Ventral Hernia, with successful Operation.*

Treated by Mr. GREEN, at ST. THOMAS'S HOSPITAL.

ELIZABETH GARRATT, a widow, fifty-nine years of age, and of corpulent habit, was admitted September 22d, 1826. When she came in (at five P.M.) the feet were cold, and she complained of general chilliness; her tongue was very dry and foul, and her pulse small, but quick and wiry. She vomited a brownish yellow fluid, intermixed with dark portions of solid matter, which gave out a feculent smell. The vomiting was repeated at intervals of a quarter of an hour, accompanied by hiccough. Upon examination of the abdomen, a flattened diffused tumor, of a red colour, was found just above the umbilicus : it was of firm texture, painful, and tender when handled, and perhaps about the size of a goose-egg. The abdomen generally, however, was lax, and free from tenderness.

She stated that for fourteen years she had been the subject of hernia, which was originally of the size of the tip of one's thumb, but which had always been readily reducible. It seems that she had likewise been afflicted with rheumatic gout, and that she had been confined to her bed for some months past, in consequence of it.

The tumor above mentioned suddenly became protruded on the 18th, when she immediately applied to a medical man, who placed a bandage around the abdomen, but which could not be borne, from its producing great pain. From this day the vomiting continued unremittingly; there having been no evacuation from the bowels since the 15th, excepting a little feculent matter brought away after the administration of a glyster on the 21st.

Fourteen ounces of blood having been abstracted from the arm, and the patient being placed so as to relax the abdominal muscles, the taxis was gently and cautiously employed. This, however, from the firmness of the tumor, and from the impossibility of determining where the pressure ought to be directed, was unsuccessful. The nature of the case was then pointed out to the patient, and she readily consented to have an operation performed. Accordingly, at half-past seven, having been placed in a convenient position, an incision was made through the integuments, in the transverse direction of the tumor, and another perpendicular to it, but extending a little beyond. The coverings of the hernia were extremely thin, there not being any proper fascia superficialis. On opening the sac, a large mass of omentum made its appearance, adherent in many places to the sides of the sac, and completely enveloping a knuckle of intestine, measuring about three

inches. The gut was of a dark lake hue, was distended with flatus, and had some lymph effused on its surface. The aperture of the sac only admitted the tip of the little finger, but, when dilated by means of an incision, the bowel was returned. A considerable portion of omentum, probably of the size of a hen's egg, was removed. Some bleeding ensued from the divided vessels of the omentum, which was restrained by the application of two ligatures. The integuments were brought in apposition, and retained by means of two sutures, and lint and adhesive straps applied. Upon her return to bed after the operation, her pulse became quite soft, but the blood previously drawn was now buffed.

Next day (23d), the bowels not having been moved, *Ol. Ricini ꝑss. ex Aquæ Menth.* was ordered, which procured a slight motion. It was repeated, and copious good motions ensued. She had slept a little during the night; her tongue was much less furred, and the vomiting had subsided soon after the operation. She complained of soreness and aching of the wound; in consequence of which, the abdomen was ordered to be fomented. In the evening she became very restless and feverish, and was bled by the dresser to twelve ounces; after which she slept comfortably. On the 25th, she complained of a good deal of pain in the abdomen, and tenderness near the wound, with a sense of tightness: the castor-oil was repeated, and she was bled to eight ounces.

On the 2d October, the lips of the wound were in a sloughing condition, and the omentum beneath appeared in the same state. The smell of the parts was extremely offensive: her spirits were depressed, her features pinched, and her appetite bad. She was therefore ordered porter, sago, and wine, with the *Pil. Rhæi ter die*. On the 4th, the sloughs had separated, but matter in some quantity lodged beneath the integuments. Her appetite improved. On the 6th, a still further amendment was observed, and the ligatures came away.

She has had an attack of gout in her hands, which has now subsided.

On the 16th, the matter was discharged in much less quantity; the wound nearly healed, and the patient going on perfectly well.

The above is not an unusual case, but is rendered interesting by the patient's recovery under circumstances that would have warranted an unfavourable prognosis. In this case, the circumstances of the patient's age, habits of life, condition of body, and previous state of health, together with the length of time during which the hernia had been strangulated, would have justified doubts of her recovery. The writer has known several instances in which, under far more favourable appearances, middle-aged women have sunk after the operation for strangulated umbilical hernia, and where nothing was detected in the examination after death, that could have accounted for the event.

*Case of Exomphalos, successfully treated by Ligature.*

By Mr. G. J. HUNTER.

THE following case is not uncommon, neither is the treatment original; but, as it adds another to the successful instances already recorded, you may perhaps think fit to insert it in your Journal.

The male child of William Gibbs, aged two months, was brought to me on the 8th of November, 1825, in consequence of an exomphalos, which had appeared about a month, and was then as large as a nutmeg: I carefully applied pressure in the usual manner, which I had always before found successful; but, notwithstanding all my efforts, the hernia gradually increased in size, and, on the 12th of January following, it was larger than a walnut.

The mother, then getting impatient, carried the child to Dr. SCUDAMORE, who recommended me to use a strong decoction of oak-bark, as proposed by Mr. LIZARS. This I accordingly directed to be constantly applied, with the addition of two ounces of alum to a quart, but the tumor still enlarged; and, therefore, on the 31st of January, I carefully returned the intestine, (which Dr. Scudamore retained within the cavity of the abdomen with his finger,) and passed a ligature, composed of four pieces of waxed silk, round the integuments, and as near as possible to the abdominal opening. The part included in the ligature rapidly sphacelated, and on the 14th of February it came away, leaving a healthy granulating surface, which cicatrised by the 12th March, at which time the cure was complete.

There was very little constitutional irritation, and the only medicine administered was a gentle aperient twice during the progress of the cure.

I shall only observe further, that the intestine never protruded after the ligature was applied, and the child (whom I saw yesterday) continues well.

Margate; October 8th, 1826.

## DISEASES OF THE TESTICLE.\*

*Cases of Diseased Testicle.* Treated by Mr. JEFFREYS, at  
ST. GEORGE'S HOSPITAL.

CASE I. of *Hydrocele*, where a simple puncture with a lancet was followed by suppuration within the *Tunica Vaginalis*, and a radical cure of the disease.

JAMES WHITTON, ætatis forty-five, was admitted into St. George's Hospital, April 6th, 1825, with a tumor of considerable size in the left side of the scrotum. He said that he had had a swelling on

\* The continuation of Mr. BRODIE's paper on this subject will be given in our next. (EDITOR.)



that part for four years, but had suffered little or no inconvenience from it until about four or five days ago, when, without any evident cause, it suddenly increased in size, and became very tense and painful, and of a darker colour than usual. He added, that he had formerly been the subject of hydrocele in the right tunica vaginalis, which was cured by injection two years before the present tumor appeared.

The tumor was now nearly of the size and shape of a small ostrich's egg, tense, painful, and slightly discoloured, as if from the effusion of blood within the tunica vaginalis. The pain extended to the groin and back; and the cord was fuller than natural. A fluctuation could be felt in it, but it was so obscure as to leave a doubt in the minds of some who examined it, whether the disease was hydrocele or pulpy testicle. The man, however, appeared to be in full health, and the history of the case was more like that of hydrocele.

He was ordered to keep his bed, to take some house-physic, and apply cold spirit-lotion to the scrotum.

April 8th.—A puncture was made with a lancet in the most depending part of the tumor, and about ten ounces of serous fluid, a good deal tinged with blood, but without any coagula, were evacuated. The testicle was found to be in a healthy condition, and of its natural size. The man remained in bed on low diet, and continued the use of the cold lotion; with a bag-truss.

In a few days the fluid accumulated again in the ordinary manner, and the scrotum acquired nearly its former size; but nothing occurred out of the usual course of events until the 16th. On that day he was seized with an attack of inflammation in the tunica vaginalis and testicle, accompanied with increase of swelling, and a considerable degree of pain in the part.

Ten leeches were applied to the tumor, and the bleeding was encouraged by the poppy fomentation.—In the evening, the same number of leeches was again put on, and he took some Dover's powder.

On the following day (the 17th), the scrotum was still very much swollen and inflamed, and he complained of severe pain.

Ten ounces of blood were drawn from his arm; and he was ordered to take a saline draught, containing a drachm of Sulphate of Magnesia and half a drachm of Vinum Antimonii Tartarizati, every four hours.—A linseed poultice was applied over the scrotum.

On the 20th, the puncture which had been made with the lancet opened afresh, and gave vent to a quantity of bloody serum, by which the pain and inflammation were much relieved.

25th.—A glairy fluid, mixed with pus, continued to ooze from the puncture. A probe, introduced at the opening, could be passed nearly its whole length into the cavity of the tunica vaginalis. The swelling of the scrotum had a good deal diminished.

May 2d.—Pure pus only was now discharged from the puncture, and there was no collection of fluid within the tunica vaginalis. The testicle remained in an indolent state: it was about the size

of a duck's egg, smooth and uniform in its figure, somewhat hard, but free from pain.

A drachm of the Unguentum Hydrargyri cum Camphorâ was directed to be rubbed over the scrotum once a-day, before putting on the poultice.

Under this treatment, the swelling and induration of the testicle gradually subsided. On the 20th, the puncture in the scrotum was healed; and, on the 1st June, he was discharged cured. The cavity of the tunica vaginalis appeared to have been obliterated, by the cohesion of that membrane with the tunica albuginea.

*CASE II. of Extirpation of a Testicle, in which an unusual combination of morbid structure was observed.*

James Gibbons, an agricultural labourer, twenty-seven years of age, was admitted February 1st, 1826, on account of a swelling of considerable magnitude in the left side of the scrotum, occasioned by a disease of the testicle. The tumor was of an oblong, oval shape, resembling a cocoa-nut, and about six inches in length by four inches in breadth. It was perfectly smooth and uniform on its surface, and had a firm elastic feel when examined, which in some parts resembled that arising from an indistinct fluctuation of fluid. The epididymis could not be distinguished from the body of the testicle. The cord was slightly enlarged, but neither indurated nor painful. The integuments of the scrotum had a natural appearance, except that the cutaneous veins were larger and more numerous than usual, and they were loose and moveable over the surface of the tumor. There was a pricking shooting pain through the testicle, which at first, he said, used to occur only occasionally, and sometimes not for a month together; but during the last three months it had become more constant and severe, and now extended to his loins. He had of late been losing flesh, had a sallow complexion, and looked out of health.

He stated, that he had first observed a swelling in that side of his scrotum, between two and three years before; that it acquired nearly its present size in the course of a few days; that it was not at first attended with much pain; and that he had been able to follow his usual occupations until within the last three months.

He was kept in bed on low diet; and, at the end of a week, in order to remove any doubts as to the nature of its contents, a puncture was made in the lower part of the tumor, but only a small quantity of pale, pulpy matter, resembling soft brain, and a little blood, escaped. The puncture healed immediately.

Feb. 13th.—The testicle was extirpated. A single incision was made, beginning an inch above the ring of the external oblique muscle, and terminating at the bottom of the tumor; the cord was secured with two ligatures, in the manner recommended by Sir E. HOME, in his work on Cancer; and three or four small arteries were tied in the scrotum. The edges of the wound were then brought together with two sutures, and covered with lint,

over which were placed compresses of linen, wetted with spirit-lotion, and the whole was secured with a T bandage.

The diseased mass, immediately after its removal, weighed exactly one pound avoirdupois. On being laid open by an incision carried through the middle of the tumor, about a drachm of yellow serum escaped from under the upper part of the tunica vaginalis. This was the only part at which that membrane did not firmly adhere to the testicle. In the centre of the divided mass was a dark, purple-coloured, fungoid structure, about the size of a walnut, resembling fungus hæmatodes: around this was a half-fluid substance, in appearance like softened brain or marrow; and beyond this the tumor had very much the character of schirrus, being hard and fibrous, and it was interspersed with numerous bony spiculæ; and a number of small cysts or hydatids, varying in size from a pin's head to that of a dried bean, and containing a yellow water. At the upper, and also at the lower part of the tumor, there still remained portions of what appeared to be the original structure of the testicle, completely separated from each other by the intervening mass of disease.

17th. —The sutures in the wound were cut out, and the ligatures came away from the arteries in the scrotum. Wound healthy.

24th, (twelfth day from the operation.) —The ligatures from the cord came away. Wound healing kindly.

March 14th. —The wound all but healed.

22d. —Discharged cured.

#### ANEURISM.

*Case of the successful Application of a Ligature to the Subclavian Artery, in a Case of Aneurism. Treated by M. le Baron DUPUYTREN, at the HÔTEL DIEU, PARIS.\**

CHARLES LECHEVALIER, thirty-seven years of age, was admitted into the hospital in February. He had a false consecutive aneurism of the left axillary artery. He had been taken prisoner in Spain, and, in endeavouring to make his escape, he received a wound on the posterior part of the left shoulder. A large quantity of blood was lost, and the man became senseless. The hemorrhage then ceased, and a simple dressing was applied to the wound. At the end of three weeks the wound was healed, and no blood was lost during the cure. Two months after the infliction of the wound, the patient perceived in the axilla a small pulsating tumor, the size of a hazel-nut. The colour of the skin was natural. At the expiration of two years, which were passed in hard captivity, the tumor had acquired the size of a hen's egg, and the pulsations were very powerful. The size of it rapidly increased, in consequence of the fatigue he was exposed to in returning by long marches to France, and it was soon as large as the head of a child at birth. The arm was kept at a distance from the body by

\* Répertoire d'Anatomie et de Physiologie, No. ii. p. 381.

the swelling. He now suffered considerable pain, and was unable to work: he therefore repaired to Paris in order to obtain the best surgical advice.

The tumor was situated in the hollow of the axilla, and was now as large as the head of an infant a year old. It was irregularly round, unequal upon the surface, particularly upon the inferior and anterior part, and it was covered with blue and dilated veins. It was hard and shining, and at every point pulsated strongly, and synchronously with the heart. On the anterior and lower part, it was covered by the skin; on the anterior and upper part, by the great pectoral muscle. It ascended to the clavicle, and left no sensible interval between it and that bone. The scapula, the clavicle, and indeed the whole of the shoulder, were raised by the tumor. The arm was rather thinner and weaker than the limb on the opposite side. The heat and sensibility were natural. No pulsation could be detected in the radial or brachial arteries; while, on the contrary, the pulsations of the subclavian artery were very powerful, and, when compressed, the pulsation of the tumor was suspended. But, to cause this suspension, it was required to apply the finger strongly against the middle part of the clavicle, and to support it at the same time upon the first rib. It was evident that a rupture of the tumor would shortly take place, and that the patient must necessarily be lost.

After having maturely reflected upon the various plans which have been suggested by different authors in similar cases, M. Dupuytren determined upon the application of a ligature, which he conceived to be the only mode of treatment from which success could fairly be anticipated. In this instance, pressure was rendered impossible, from the bulk of the tumor. It was still to be determined in what manner, and at what part, the ligature was to be applied. It appeared that the only way of protecting the patient from hemorrhage during the operation, and from inflammation and suppuration, &c. of the sac afterwards, was to tie the artery above the aneurismal tumor. It was not possible to tie the axillary artery, in consequence of the size of the aneurism. It was necessary, therefore, to secure the subclavian artery, which, in its course on the left side, presents three distinct parts: 1st, from its origin from the aorta to its entering between the scaleni muscles; 2d, from the entrance of the vessel into the scaleni muscles until its exit from their substance; 3d, from this last point to the superior surface of the first rib: an important distinction, which has scarcely been pointed out by authors. The second point in the course of the artery appeared the most advantageous, as the vessel is admitted alone into the interval of the scaleni muscles, and is entirely separated from the subclavian vein, and from the plexus of the nerves of the arm. In taking, then, the anterior scalenus muscle for a guide, the artery may be tied without the risk of including any nerve in the ligature. M. Dupuytren, it appears, had contemplated the performance of this operation in an analogous

case, ten years before. "Circumstances, however, which were then beyond his control prevented him from realising his project, and left to foreigners the glory of having first attempted, and of successfully applying this ligature."\*

The operation being determined upon, and anxiously wished for by the patient, venesection was had recourse to, to empty the vessels, and to prevent the plethora and determinations of blood, to which the ligature so frequently gives rise when it is applied to the larger arteries.

The patient lying upon a bed, M. Dupuytren made an incision rather obliquely from above downwards, and from within outwards, about one inch above the clavicle. This first incision divided the skin, platysma myoides, the subcutaneous cellular tissue, and also three small vessels, which were immediately secured. The application of the ligatures caused considerable pain at the bottom of the throat. In continuing the operation, the surgeon came to the cellular tissue, and the glands which surround the artery, and the nerves of the brachial plexus. The external border of the anterior scalenus muscle was then sought for, and the muscle was completely divided near its insertion, by means of a blunt-pointed bistoury. The artery could now be perceived. The pulsation of it was with facility suspended, by the introduction of a finger to the bottom of the wound. A grooved silver probe, bent to about a quarter of a circle, was passed under the artery. A stilet, armed with a silk ligature, was passed along the groove of the probe, and drawn out on the opposite side. The ligature was then placed round the artery. To prove that the artery was fairly included, the two ends of the ligature were drawn a little upwards, and the fingers at the same time placed at the bottom of the loop which it formed. The pulsation of the artery ceased. No pain was given by the frequent repetition of this experiment, and the same result always succeeded. The ligature which was applied to the small arteries that were divided at the beginning of the operation gave considerable pain, but that upon the principal artery was not even felt by the patient. It cannot be doubted that this remarkable circumstance arose from the section of the anterior scalenus, which rendered it so easy to exclude every nerve from the ligature. The pulsation of the tumor immediately ceased. Convinced of the inutility, and even of the danger, of the "ligatures d'attente," M. Dupuytren did not make use of them. The patient did not lose two spoonsful of blood during the operation. The wound was dressed with mild ointment; the tumor was covered with resolvents; and the limb, placed upon a pillow, was enveloped in bags filled with warm sand.

\* We believe Mr. RAMSDEN, of St. Bartholomew's Hospital, was the first surgeon who ever tied the subclavian artery by cutting above the clavicle. The operation was performed in November 1809. The patient died five days afterwards. For a detail of this case, and some interesting observations upon the probable causes of the failure of the operation, the reader may refer to COOPER'S Surgical Dictionary, p. 103, art. ANEURISM. (TRANSLATOR.)

In the course of the day, the patient complained of slight pain in the throat. A precautionary bleeding was had recourse to. There was no pulsation in the tumor, and he passed a good night. The limb was of the natural temperature, and retained its muscular powers and sensibility. A slight darting sensation was felt in the tumor.

On the eleventh day, the ligature came away, without the slightest hemorrhage. The size of the tumor began gradually to diminish a few days after the operation. On the thirtieth day, the wound was nearly healed, and the patient began to make some use of his arm. The tumor was soft and fluctuating, from which it was apprehended that suppuration and a spontaneous rupture might occur. It was kept constantly covered with compresses wetted with Goulard water, which were renewed every two hours. By the seventy-eighth day, the tumor was of a much firmer consistence, and suppuration was no longer feared. The heat, sensibility, and muscular power were equal to those of the right arm. The circulation of the limb had that peculiar character which is always observed when the principal artery has been tied. No pulsation could be detected in the arteries. It was evident to the touch that they were full, and that the blood proceeded through them; but, in passing through the numerous and minute anastomoses which conducted it from the superior to the inferior parts of the limb, the blood had ceased to be influenced by the action of the heart, which produces in the other parts of the arterial system that alternate dilatation and contraction which constitute the pulse.\*

A few months afterwards, Chevalier resumed his business of a joiner. During three years he continued free from complaint, and no longer thought of the disease from which he had so fortunately escaped. In consequence, however, of great exertion, inflammation took place in the axilla. Being uncertain of the nature of the complaint, he returned to Paris. A tumor, about the size of the fist, was found in the axilla; it was pointed, and threatened to break. No pulsation was to be detected in it. Emollient applications were used, as it was clear the tumor had no connexion with the circulation of the blood, and at the end of fifteen days it spontaneously ruptured. A large quantity of pus was discharged, coloured with blood, which had long remained in the swelling: not a drop of red or arterial blood was discharged. The opening was enlarged by M. Dupuytren, with a probe-pointed bistoury. The suppuration gradually diminished; the sides of the tumor approached each other, and the patient was sent from the hospital perfectly cured. The axilla was perfectly free from enlargement of any sort.

The distinguishing points of this operation from others in which the subclavian artery has been tied, are the spot in

\* This is a question still *sub judice*. Vide "An Experimental Inquiry into the Nature and Causes of the Arterial Pulse," by Dr. PARRY. (TRANSLATOR.)

which the ligature was applied, and the section of the anterior scalenus muscle. By this means the surgeon is sure to discover the artery, in following the external margin of that muscle, and of avoiding the adjacent veins and nerves. It is presumed by the relator of the case, M. MANN, that, in future, the above method of performing this important operation will certainly be adopted. Two plates are given, which represent the situation and volume of the tumor before the operation, and the ligature around the subclavian artery, between the two scalmi muscles.

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## CRITICAL ANALYSES.

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*Quæ laudanda forent, et quæ culpanda, vicissim  
Illa, prius, cretâ; mox hæc, carbone, notamus.*—PERSIUS.

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*A Comparative View of the more intimate Nature of Fever: deduced from Physiological Analysis, and illustrated by Critical Remarks and Practical Observations.* By JAMES BLACK, M.D. S.R.N. and Member of the Royal College of Physicians of London.—8vo. pp. 118. London: Longman and Co. 1826.

DR. BLACK has written a sensible, but we cannot flatter him so far as to call it an interesting work. It has for its object to investigate the nature of fever in general, without reference to its particular forms; and with this view he collates and compares some of the principal theories which have at different times been propounded, and, finding them insufficient to explain the phenomena, he presents us with his own opinions on the subject.

The author begins by considering the "primary stage" of fever; and having shown, what is indeed undeniable, that the morbid change cannot have resulted from any appreciable increase or diminution of the solids or fluids, he argues further, that as, besides these, there are no other "elements" in the body, "save the different powers of mind, motion, and life, it is presumed that some lesion or affection of these imponderable essences has given rise to the elicited phenomena." The share which these have in fever is next investigated, and the first important conclusion at which we arrive is, that although the brain and nerves of involuntary motion are intimately implicated in all well-developed fevers, still, according to Dr. Black's opinion, that they are primarily affected, is not so consonant with general facts and observation.

Passing on to some other source whence the morbid phenomena in question may proceed, we are told that there is another most important power, in more immediate connexion with the matter of our bodies than either the brain or nerves, giving place only on the commencement of chemical decomposition: this he calls "muscular power, or *materia vitæ*;" and to this the preliminary phenomena of fever are referred. It will scarcely be expected that the impaired energies of the system are to be accounted for by any increase in this same *materia vitæ*, and accordingly its diminution is regarded as the first link in the chain.

"Capillary circulation is affected among the very first *mobilia* of fever; and this capillary affection consists of an impaired or a diminished action, which, it is known from strict physiology, can only happen from a decrease of the motive and vital powers of this system, where no sensible lesion has otherwise taken place. The lassitude or weariness of the muscles, where no undue exertion, nor even any, has preceded, can only be accounted for by the fibres being deprived of the healthy proportion of the *materia vitæ*: in fact, they are, in one sense, in the same condition as if they had been exhausted by severe exercise. The nerves of volition transmit their ineffectual stimuli to both conditions of the fibres; but, in the one case, the irrespondence excites no surprise nor uneasiness, while, in the other, we have the apparent anomaly of weariness and the pains of exhaustion, without previous exercise. A cold and shrunk skin, with the sensation of chilliness, is also referred to the partial absence of superficial vitality and to diminished capillary circulation, while the nerves are ready to transmit to the sensorium the changes taking place at their extremities; not forgetting that the more internal vessels, having also lost their tensiveness, are, in this stage, relatively overcharged with blood, and giving the sensation of pressure and of greater heat to another set of nerves; which increases the relative sensation from those arising from the surface of the body. The small and frequent pulse arises from the oppressed and diminished action of the heart, occasioned by an undue load of blood and impaired muscular power; the consequence of which is, that the heart does not fully contract and empty itself, but the imperfect systole more frequently takes place, to get rid of the same quantity of blood in the same section of time; and, besides, the capillary (reticular) circulation being almost neutralised or stopt, the blood must make its circuit in a shorter period of time, else it would become more or less congested in the vessels. To an impaired muscular power over the whole system, at least to the extent of embracing the heart in the lesion, the initial phenomena of fever are attributed; but in what exact manner this is accomplished by poisons, cold, stimuli, and contagion, it is not attempted at present to inquire: A negative condition of this power, it is inferred, may physiologi-



cally be granted to be an essential condition of the first cognisable symptoms: it is therefore taken as an ultimate fact in the present stage of pathological investigation, and it is left to other and future research to carry the solution of causation farther up the scale of nature." (P. 22.)

We have already stated that our author examines the opinions of the principal writers upon fever: among these there are two who, we suspect, will scarcely thank him for the mention he has made of them,—we mean Dr. W. PHILIP and Dr. ARMSTRONG. In reference to the former, he quotes his *Treatise on Febrile Diseases*, published in 1797, in which he states "that the proximate cause of fever is a change in the laws of excitability, in consequence of which the same agents no longer produce the same effects:" and again—"fever may be either a state of excessive excitement or debility of all the functions, without local affection." Now this is no more than a modification of the Brownian theory, and we think it scarcely fair to expect that a work so crude as that from which the quotation is taken, can be regarded as containing the opinions of its author at a distance of thirty years, during which time he has written other works, in which no mention is made of these distinctions of fever; a circumstance, indeed, pointed out by our author himself. With respect to Dr. Armstrong, he takes as *his* pathology of fever that which is contained in the edition of his work on Typhus, published in 1816; but there are some whose opinions do not require thirty years to undergo a revolution.

The "secondary stage" is next spoken of, and the various phenomena of reaction detailed; but in this part of the discussion we find nothing either new or interesting.

Symptomatic fever is regarded as proceeding from the same source as idiopathic, the effect of an injury being to impair, according to its extent, the muscular power. Exhaustion and expenditure of vitality are propagated by continuity or similarity of texture, by the medium of the nerves or by the blood, to the heart, or even to the brain, by which the vascular system is brought into this negative state with regard to its muscular power; and hence the series of febrile actions. "The induction of symptomatic fever would, however, appear to require only the heart and blood-vessels to be reduced in their *materia vitæ*, as the brain is not commonly much affected."

The doctrine of "irritation" occupies some share of our author's attention, and leads to various quotations from the modern French writers, but to nothing satisfactory. After some cursory remarks upon the coagulation of the blood, as

connected with the form of fever called inflammatory, the author comes to the following conclusions, which may be regarded as containing a summary of his peculiar views.

"First. A fever essentially and primarily consists in a negative state of the muscular power, as compared with the physical organism or substratum of the body; and it appears that it is sufficient to constitute the febrile act, for the heart and blood-vessels to be alone involved in this relative condition.

"Secondly. This negative state may be produced, either by exhaustion, as from heat, violent exercise, or stimuli; or it may be the direct or instantaneous result of an injury, or of the application of debilitating powers,—as of some poisons and contagions.

"Thirdly. A stage of atony, torpor, or collapse, however short, and sometimes obscure, but at least to embrace the heart and blood-vessels, is the initial condition of every symptomatic and inflammatory fever, as well as of those of the lowest and most contagious type.

"Fourthly. This negative state of the muscular power is, in the first instance, either quickly followed by death, or, sooner or later, by increased frequency or quickness of the pulse, arising from the stimulus and pressure of the increased volume of blood on the heart, now relatively reduced in its vitality. This frequency of the heart's action is also promoted by accumulating heat, the consequence of repressed secretion and perspiration, and by the sensation of pain or irritation being transmitted through the nerves to the heart, or sensorium, or to both; thus exhausting the muscular power, and increasing the mobility of the moving fibre.

"Fifthly. All fevers, commonly so called, are the constituted sequences of a prior condition: they are strictly physiological reactions.

"Sixthly. The reaction in any case will be as the previous strength and plethora of the constitution, joined to the quickness and the degree to which the *materia vitæ* has been affected, provided it has not suffered to an immediate irretrievable extent: and the mildness of a formed fever will be proportioned to the small extent to which the muscular power has been injured; while the lowness and putridity of the type will again depend on the depraved or reduced state of the body previous to the disease, added to the greater or less universal lesion of the muscular power.

"Seventhly. A fever will recur and continue, at least until the *inertia* and bulk of the solids and fluids of the body be brought on a par with the powers of the muscular life, either by the reduction of the former, or by the increase of the latter; which equilibrium not being obtained, dissolution must follow.

"Lastly. The exact causes of idiopathic fevers, assuming the different periodical types, or being continued, are obscure; as we are, in one regard, ignorant of the nature of the exciting causes, beyond perceiving that they have generically a debilitating effect on the muscular principle.

We dissent from the first position: it appears to us that too much stress is laid throughout upon the state of the muscular system; neither do we think it "sufficient to constitute the febrile act, for the heart and blood-vessels to be alone involved in the relative condition." We regard fever as essentially consisting in an impression made upon the brain and nerves, the nature of which we do not, and probably never shall, know: while, with regard to the subsequent phenomena, they are as general as is the influence of that system, on the primary derangement of which they depend. Sometimes one part is more peculiarly involved, sometimes another: but we agree with Dr. FORDYCE, who, speaking of fever, says, "it is a disease that affects the whole system; it affects the head, the trunk of the body, and the extremities; it affects the circulation, the absorption, and the nervous system; it affects the skin, the muscular fibres, and the membranes; it affects the body, and it affects likewise the mind."

These theoretical views of fever are followed by some observations on the various indications of cure, and the individual remedies to be employed in their fulfilment; but this part contains nothing of sufficient importance for quotation.

We stated at the commencement of the present article, that the work was not very interesting: this appears to us to depend, in a great measure, upon the involved and somewhat pedantic style adopted by the author. Thus, speaking of those who refer fever to a local cause, he says, "When once inflammation was detected in the progress of a fever, it was immediately made the co-efficient to the whole equation of phenomena, which then received their separate values, and the solution of the whole was supposed to be satisfactorily elicited." (P. 11.) Other examples of a similar nature might be given, but the above is sufficient to illustrate our meaning.

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*Transactions of the Medico-Chirurgical Society of Edinburgh.*  
Vol. II. With Plates.—8vo. pp. 411. Black, Edinburgh;  
Longman and Co. London. 1826.

(Concluded from page 363.)

*An Account of several Cases of Poisoning with Arsenic.*  
By Dr. CHRISTISON.

THE object of the very intelligent author, in the first part of this paper, is to show that the liquid re-agents, usually employed in the detection of arsenic, may be altogether superseded by the method of reduction and sublimation, which he

suggests may be rendered so delicate as to afford more minute evidence than any liquid test. When the student sets about repeating the experiments described by chemists as calculated to detect the presence of arsenic, he invariably (or almost invariably) employs distilled water; and nothing, certainly, can be more clear and satisfactory than the results thus obtained. But it is quite obvious that this kind of investigation is of little avail when we are called upon to decide in cases of poisoning, where either the metal is found in such quantity as scarcely to require the assistance of any chemical manipulation, or else every step of the process is embarrassed by the alimentary and other matters contained in the stomach, interfering with the action of the tests, and obscuring the results by modifying the colour of the product; and, although various methods, especially that of Mr. PHILLIPS, have been found, to a certain extent, efficacious in destroying the colours of these mixed fluids, yet we agree with Dr. Christison that none of them can be safely applied to medico-legal investigations. The manner in which our author recommends the examination to be conducted, will best appear from the following account of an analysis performed by him three months after the death of an individual, supposed to have been poisoned. Part of the contents of the stomach had been preserved, and the details are thus given:

"The substance transmitted was a thick, slightly viscid, putrescent, dirty-gray fluid, with a few floating coagula; and it amounted to an ounce and a quarter. It was poured into a porcelain vessel, diluted with the washings of the phial, boiled briskly for fifteen minutes, and thus changed into a transparent liquid, with dirty ash-gray flocks suspended in it. The solid matter being separated by filtration, a clear fluid was obtained, of a very pale, straw-yellow colour.

"A small portion of this fluid was tested with lime-water, and the ammoniacal nitrate of silver. Lime-water caused a very scanty, dirty grayish-white, flocculent precipitate. The ammoniacal nitrate of silver caused a copious, dirty grayish-white, pulverulent precipitate, without the slightest tint of yellow.

"As the arsenic, if present at all, evidently existed in very minute proportion, and the fluid was so composite as to render the foregoing tests inconclusive; instead of wasting any more of it upon trials with the other liquid re-agents, the whole of the remainder, with the washings of the filter, was acidulated with acetic acid, and subjected for fifteen minutes to a stream of sulphuretted hydrogen gas. It acquired, in consequence, a deeper yellow colour, and muddy appearance; which, when the excess of sulphuretted hydrogen was driven off by ebullition, gave place to a considerable precipitate, of a pale lemon-yellow colour, and

composed partly of fibrous flocculi, partly of very minute, brilliant scales. The presumption that arsenic existed in the fluid was thus strong.

"Next morning, the precipitate having fallen down, the supernatant fluid was withdrawn with the pipette, and its place supplied with distilled water. The brilliant scales then became still more distinct. The operation of subsidence and affusion being repeated the same day, the precipitate was thrown upon a filter; and next morning, when the water had passed through, the filter was compressed, and partially dried between folds of bibulous paper. The moist precipitate was then removed, dried in fragments with a gentle heat, dropped into the bottom of a tube of this shape and size, and covered with a little black flux, which was dropped



through a paper tube, so as not to soil the glass. The whole material just filled the ball at the end of the tube. Heat was then cautiously applied with a very small spirit-lamp flame. Some water, disengaged at first, was removed with a roll of filtering paper. On the farther application of heat, which was raised to full red, a distinct crust was sublimed into the narrow part of the tube. It was smooth, bluish-gray, and brilliant, like polished steel, externally; crystalline, sparkling, and iron-gray internally, like the fracture of fine steel.

"The portion of the tube containing the flux being removed by melting and drawing it out, the crust was driven up and down by the spirit-lamp flame. At first it kept its polish and iron-gray colour; but at length it was all converted into little detached crystals, white, translucent, of adamantine lustre, and evidently showing triangular facets under a microscope of four powers. These crystals, I need hardly add, were octaëdral crystals of oxide of arsenic. The tube was weighed before and after the crystals were washed out with distilled water; and their weight thus proved to be one-twentieth of a grain.

"The solution, amounting to a drachm, was divided into three portions, and subjected to the ammoniacal sulphate of copper, the ammoniacal nitrate of silver, and sulphuretted hydrogen. These tests all gave pointed indications; but it required very cautious management to make them distinct.

"This analysis left no doubt that the deceased had taken arsenic; and, as the symptoms and mode of death, as well as the morbid appearances, corresponded with what arsenic is known to produce, I could not hesitate to ascribe his death to its administration." (P. 289.)

Dr. Christison assumes that the arsenic in the matter

transmitted to him scarcely exceeded the twentieth part of a grain; a quantity, minute as it is, which he thinks will never fail, in careful hands, to afford complete evidence.

A second case is related, the chief peculiarity of which consists in the entire absence of any morbid appearances in the stomach. This circumstance is very rare, and has only been recorded as occurring in those instances where the patients die soon after the administration of the poison, as in the present case, where the individual (a girl fourteen years old) survived only five hours. Only one difficulty is anticipated as likely, when it takes place, to impede the method proposed above: it is thus described, and the means of obviating it pointed out.

"I have said that I have hitherto found this method susceptible of universal application: I can foresee the possibility of one difficulty, however. If the fluid containing the arsenic is ropy and viscous, even after being boiled and acidulated with acetic acid, the sulphuret thrown down may be mingled with so much animal matter, that the metallic sublimate is not distinctly formed, on account of the great quantity of empyreumatic matter suddenly projected along with it. This has happened to me once only out of at least a hundred experiments. In that case, an addition must be made to the process. The criterion by which we may know that the additional process is required, is the colour of the precipitate. If the colour is lemon-yellow, or pale brownish-yellow, it is unnecessary: if it is cream-white, the simple process will probably fail. The plan I should prefer is a modification of that proposed by Berzelius, and of the method followed by Roloff, for determining the quantity of arsenic in the sulphureous precipitate. Treat the precipitate with nitric acid, and thus convert the sulphuret into sulphuric and arsenic acids; dissolve and filter; neutralise with ammonia, and throw down the arsenic and sulphuric acids with nitrate of lead; reduce the precipitate, which contains arseniate of lead, in the usual way." (P. 306.)

The second part of the paper relates to the "symptomological evidence" of poisoning by arsenic, principally in the form of a lengthened commentary on a case, in which its administration was deemed probable. Into this we cannot enter; but we may observe, that the author regards the symptoms as capable of affording more satisfactory evidence of the previous exhibition of various poisons, than writers on medical jurisprudence are generally inclined to allow.

With the following illustration of the *peculiar* effects of some poisons, (three of them common,) we conclude our account of this interesting paper.

"There are some poisons, the symptoms of whose action are

generally so characteristic, that an experienced person cannot confound them with any natural disease, or with any other poison. Others possess this characteristic action more rarely. Of the first kind are *oxalic acid* and *strychnia*; of the second, *corrosive sublimate* and *arsenic*.

" Few opportunities have hitherto occurred for ascertaining correctly the symptoms of poisoning with oxalic acid, in those most frequent cases in which it proves fatal within an hour. The instances, however, which have been accurately observed, coupled with what is known of its effects on animals, lead to the conclusion that it generally causes a very sour taste,—a sense of burning along the throat and gullet, in the act of swallowing,—acute burning pain in the stomach immediately afterwards,—then violent vomiting,—next sudden failure of the pulse and strength,—and death in ten, twenty, thirty, or sixty minutes, sometimes under a state of pure and rapidly increasing faintness, sometimes at the close of one or more attacks of violent tetanic spasm. Such a succession of symptoms, within such an interval, cannot be caused by any other poison, or by any natural disease or combination of diseases, with which I am acquainted.

Strychnia is another poison which causes almost invariably symptoms quite characteristic of its action: If, within a few minutes after taking an intensely bitter substance, a person is attacked with pure and violent tetanus, recurring in frequent fits, and proving fatal in five, ten, twenty, or sixty minutes, I cannot conceive it possible to draw any other inference, than that death has arisen from poisoning with strychnia, or some of the poisons which contain it. These symptoms are almost invariable, at least in the case of strychnia itself. There is a way, indeed, in which this alkaline principle might be administered, so as to act differently, and to render it difficult to form the foregoing opinion. For obvious reasons, I shall not mention it. It can only be tried with success by one very well acquainted with the properties of the poison. On the whole, therefore, a decided opinion may be drawn in almost every instance from symptoms only; and this is a point of consequence, because other medical evidence will seldom be attainable, and nothing but the difficulty of procuring the drug keeps it now out of the hands of the poisoner.

" Corrosive sublimate is one of the poisons that produce characteristic symptoms only on some occasions: Several cases are on record, in which it has caused a strong metallic and astringent taste,—a sense of corrosion and burning in the throat or gullet, or both, in the act of swallowing,—acute burning pain in the stomach and belly soon afterwards,—speedy, violent, and often bloody vomiting,—afterwards purging of the same description; and, on the second or third day, or a little later, more or less salivation, with fetor of the breath, ulcers of the gums, dropping out of the teeth, and even gangrene of the mouth: all the signs, in short, of true mercurial salivation. In the event of such a case occurring

in a criminal court, I cannot see how a witness could avoid giving his opinion that corrosive sublimate, or some soluble salt of mercury, had been taken.

"I shall now close this subject, by endeavouring to show that arsenic is another poison which may at times produce symptoms such as cannot originate in any other cause.

"Arsenic, when it does not prove fatal, or only after a week or upwards, often causes a singular complexity of symptoms, denoting inflammation, or at least violent irritation, in the throat, gullet, stomach, and intestines,—in the windpipe,—in the mucous membrane of the eyes and nose,—in the urinary bladder, urethra, and vagina: in short, in the whole mucous surfaces of the body. In such cases, too, there are occasionally eruptions of the skin,—sometimes petechial, sometimes measly, sometimes miliary: and more frequently the inflammatory symptoms are accompanied or succeeded, on the one hand, by complete or incomplete palsy of one or more of the extremities, and sometimes, too, racking pains in the palsied parts; or, on the other hand, by frequent fits of epilepsy, or by both together. No medical jurist could doubt that arsenic had been given, if he met with such a conjunction of disorders. They cannot be produced by any other poison, so far as our knowledge goes; and as little can they be caused by any natural disease, or any union of diseases ever known. It is true that such a union of symptoms from natural causes is conceivable; but, if it is so, it could never take place without its origin being clearly pointed out by collateral circumstances." (P. 318.)

*Observations on Cutaneous Absorption, with Experiments,*  
by Dr. DILL.

The author thinks it very difficult to account for the unnatural secretion of urine which takes place in some conditions of the body, on any other principle than that of cutaneous absorption; and, with a view of establishing the existence of this, he has performed a set of experiments: these consisted principally in weighing persons very accurately, immersing them in baths, and again weighing them when taken out. Thus—

"A young man, weighing exactly 142 pounds, 5 ounces, and 2 drachms, whose pulse was 71, and heat 93°, descended into a bath, the temperature of which was 86°. After remaining in it for half an hour, and being again weighed, he had gained half a drachm. His pulse and heat during the experiment were unaffected. The expenditure which his body was hourly sustaining before the experiment, was two ounces and a half in the hour. When we, therefore, add ten drachms for the constitutional waste which he suffered in the bath during the half-hour of immersion, to that gained by the experiment, the amount of gain will be ten drachms and a half." (P. 354.)



To us it appears that the phenomena may be very satisfactorily accounted for, on the supposition that the contact of the water prevented the usual exhalation from the skin; while the thirty grains he had gained was probably a portion of fluid remaining upon different parts of the body. Dr. Dill, however, draws the following conclusions, from this and other experiments:

“ In the first place, that the body in general increases in weight while in the bath; secondly, that, when its weight is unaffected by immersion, something must have been absorbed by it, to answer the natural expenditure of the system, which has been apparently suspended during the experiment; thirdly, that, when its weight is diminished, this arises either from an inactive condition of the cutaneous absorbents, or from the temperature of the bath being so high as to accelerate the action of the heart and arteries, and thus increase the perspiration; fourthly, that the additional weight acquired during immersion cannot be accounted for, either on the supposition of an increased pulmonary inhalation, or of a diminished evacuation by the skin; and, lastly, that the most simple and satisfactory method of accounting for this increase of weight, is by admitting the doctrine of cutaneous absorption.” (P. 363.)

There follow a paper by Dr. ANDERSON, of Trinidad, in which baths and enemata of infusion of tobacco are strongly recommended in *Tetanus*; and some observations on the *Dysentery of Madeira*, by Dr. RENTON of that place, in which the author speaks highly of the mercurial plan of treatment. Neither communication is of much interest.

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*Letters, Physiological and Moral, upon Animal Magnetism; containing a critical Exposition of the most recent Experiments; with a new Theory of the Causes, the Phenomena, and the Application of Animal Magnetism to Medicine.* By J. A. DUPAU, &c. &c. &c.—8vo. pp. 248. Paris, 1826.

DECIDEDLY sceptical as we have at all times been respecting the marvellous effects of animal magnetism, we are too well convinced of the powers of the mind over the body, either in a state of health or of disease, to doubt that the tricks of charlatans may have produced very striking effects; particularly when they have had to act upon the imagination of those who were feeble in mind, or morbidly sensitive in body. To admit, however, that the imagination may thus have been worked upon in some cases, is not sufficient for the true disciples of the “art.” Either from a wish to impose upon others, or from an extent of credulity, to which perhaps the term of “monomania” might be not inaptly applied, they reject with indignation the explanation which we now offer, and contend that the effects produced, arise from the specific

action of a magnetic fluid, transmitted at will from one person to another. It is not to be wondered at that the magnetising gentry should defend this point with determined obstinacy. Without this particular fluid, their "occupation's gone;" for the reality of animal magnetism entirely depends upon its existence.

The author of the volume before us is the editor of the *Revue Medicale*, and he has lately published several papers in that Journal upon the subject, of which he more formally treats in the work placed at the head of this article. He has even added something to the character of the "science of animal magnetism," by delivering some public lectures upon it.

The book consists of sixteen letters, addressed to ALIBERT. We shall pass them briefly in review, and give our readers the substance of their contents. - It may be necessary to do our author the justice of premising, before we start with him as his companions in this magnetic investigation, that he is by no means the dupe or the disciple of the modern Magi. He acts, in fact, upon the principle of the motto he has chosen. He examines before he believes, that he may neither deceive others, nor submit to deception himself. The opening passage of the first Letter, at least, promises a rational examination of the subject.

"You ask me (says the author,) my opinion of animal magnetism, which some physicians are inclined to take into their serious consideration. To be sincere, I consider it a fantastic art, the mysterious proceedings of which have power only over men of morbid mind. It envelops in the same veil of error its propagators and its dupes. It is, in fact, a science, false in its theories and dangerous in its practice. Such is the result of my observations upon the subject. In endeavouring to unravel the disputes connected with animal magnetism, and to discuss with you its phenomena, I hope to destroy all that has been invented by credulity and ignorance to prove its power. It cannot be doubted that there is in every thing which is mysterious an unaccountable power, which acts upon us in spite of ourselves,—which leads us on, and subjugates us, in opposition to our better reason,—which fascinates our understanding, and disposes it to be the prey of every seduction and of every surprise. Such is the first source of the influence of animal magnetism."

By the unscientific and incorrect term of animal magnetism, is meant to be implied that concealed agent, discovered (or rather fancied to have been discovered) by the famous Mesmer, and which his partisans have made the principle of the phenomenon called magnetic. The expression, however, we

may observe, is not of modern origin : it was employed by Van Helmont and Paracelsus, to designate certain modes of treatment considered useful in wounds, and in some particular diseases.

We shall not follow our author through the "philosophical history of animal magnetism." It may be sufficient to observe, that, from the most ancient periods, certain arts have been had recourse to, for the furtherance of interested views, and the support of particular doctrines, either of philosophy or religion. The same key which unlocks the mysteries of the ancient temples, and the magic machinations of the middle ages, will also throw open to our view the physical and moral phenomena of animal magnetism. It is well known that the Egyptians, who extended so far every useful art and science, also raised to perfection the power of acting upon the moral and physical constitution of man by various fascinations. Their priests, who were their first physicians, well knew the influence which might be produced upon certain diseases by excitement of the mind. The sight of consecrated objects, mysterious ceremonies, and a variety of other contrivances, were had recourse to, and with the effect of producing very remarkable impressions upon excitable and credulous imaginations. The influence of the Divinity was supposed to be exerted. How skilful the Egyptian priests were in working upon the imagination of their victims, and in exciting the nervous system, may easily be imagined by the convulsive paroxysms and the mental extasies of those who were newly initiated. Numerous were the means these magi kept carefully concealed within the interior of their temples, to maintain their mighty influence over the people. That they possessed a considerable fund of useful information, is not to be doubted. It was all, however, subservient to their master-passion,—to the ambition of securing the mental slavery of the multitude. In some Egyptian monuments which are still preserved, may be seen the magnetising priest at the bedside of the patient. The attitude of Anubis is precisely that of the modern magnetiser. To the Egyptian priests we are also indebted for different amulets, and many other magic means, which at once imposed upon and cured their credulous countrymen. The mention of these circumstances alone will be sufficient to draw the attention of our readers to the analogy we wish to trace between the ancient mysteries and the practice of the modern disciples of animal magnetism.

We know not the proceedings by which the Grecian priests succeeded in elevating their priestesses to that pitch of

mental excitement denominated "divine fury," but the similarity of the effects to those arising, under certain circumstances, from animal magnetism, appears sufficiently evident. These pious frauds would have been pardonable, if they had been confined to the treatment of disease. Such, however, was not the case. The influence which one set of men possessed over the majority, was turned to the most debasing purposes. The people were fettered, both in mind and body, by spells of enchantment. We doubt not but that the magnetising conjurers of the present day would like to riot in the spoils, which their brethren of old so well knew how to wrest from those whom they held in bondage.

The modern magnetisers would wish us to believe that at least they have the merit of proposing to us a new system. Our author, however, does not fail to prove the contrary: he quotes a passage from Plautus, which completely settles the point. Mercury, having assumed the figure of Sosia, doubts whether he shall free himself from his presence, by inflicting a few well-applied blows, or by putting him to sleep. "Quid (says Mercury,) si ego illum tractim tangam ut dormiat." The practice, then, of animal magnetism to procure sleep possesses no charm of novelty. We would refer those who wish to be convinced of the antiquity of this system of quackery, to the *Dictionnaire des Sciences Medicales*, art. *Magnétisme Animal*, tome xxix. p. 463. The article is elaborate and interesting, containing a detailed account of this pretended science.

It has been well observed by Buffon, that, when the human mind is struck by any singular object, much gratification is derived from rendering it still more extraordinary, and in attributing to it chimerical and marvellous powers. Hence we find that patients have frequently been cured by the touch,—by certain signs,—by tracing a wand over the body,—by being placed in a variety of ridiculous attitudes, and by other means equally absurd. We cannot venture to say that the ancient astrologers removed many diseases by their celestial treatment; but, in common with the magnetisers of the present day,—in common with all those who are aware of the effects that may be produced by excitement of the nervous system and the imagination,—they sometimes produced real cures. It would appear that at all times the regular and rational physicians have been opposed to these charlatans.

The overwhelming influence which particular sects have from time to time exerted over the passions and general conduct of the multitude, is next considered; and indeed requires no laboured evidence. It is equally true that, in numerous

instances, the body has been acted upon through the medium of the mind, as the mind has through the body, and that diseases have sometimes been relieved, and sometimes been caused, in this manner. It is necessary, however, to bear in mind the close affinity between the sectarians of a former age and the magnetisers of the present moment, both with respect to the mysticism of their dogmas, and the various stratagems to which they have recourse. It may ruffle the temper of the true believers of the "specific magnetic fluid" of modern date, thus to trace the origin of their mummery, and to reduce their practices to their proper level: the statements may be unpalatable, but for our part we have no doubt of their truth. The extraordinary scenes that occurred at Paris during the time of the *convulsionists* of St. Médard, were lamentable proofs of how much might be effected upon weak imaginations by the fraud or insanity of a few. We must refer to the work itself for a detailed description of these pitiable follies. The moral epidemic lasted for some years, until at length a *jeu de mot* put an end to the affair. The following distich was written, over the door of the cemetery:

" Il est défendu de par Dieu  
De faire miracle en ce lieu."

The next Letter discusses the progress of animal magnetism since the time of Mesmer. The first ideas of the art were not suggested to this idle speculator by the direct observation of any phenomena which the mutual relations and influences of men presented, but by a false theory of the universality of a magnetic fluid, which established the harmony of the celestial bodies, and the emanations of which acted upon the human frame. We cannot pass through the labyrinth of errors which owed their origin to Mesmer. His reputation was of short duration, although for some time he turned his jugglery to good account.

The subjects next treated of are "the different Theories of the Magnetisers; the Magnetic Fluid; the Will."

"It is a very general remark, (says the author,) and one which may be applied to every new kind of knowledge, and to all researches which become the objects of discussion, that, when at different periods the attention of mankind is directed to the same object,—when people of different countries, and at distant epochs, occupy themselves zealously in its investigation,—we may be assured that there is some foundation for such novelties, and that they offer some positive results. But the sum of error is frequently so considerable, that it is difficult to separate the truth from the falsehoods in which it is disguised."

Such is the case with respect to animal magnetism, em-

playing the term in its modern acceptation. Extraordinary effects have no doubt been produced, but the interested and pretended adepts in the art have refused to admit a reasonable explanation of them.

"The first idea which led to the use of the term *magnetism*, was the affinity which it was thought was detected between the properties of the mineral loadstone, and the reciprocal action of two individuals. But what kind of similitude can there exist between the power of attracting iron, of taking a direction towards the poles, &c. and that which a magnetisor exercises by his fascinations upon a credulous and diseased individual."

Our author, notwithstanding the castigation he very properly bestows upon the trickeries of former times, is inclined to be somewhat more charitable to the modern magnetisers. He forgets, probably, the relationship he has all along endeavoured to establish between the actors in both the ancient and modern farces, when he says that "he does not suspect the magnetisers of *mauvaise foi*." He is only willing, however, to grant them honesty at the expence of understanding: the terms are hard, but they are precisely those which we should ourselves have imposed.

In the Letter which describes the "Management of Animal Magnetism," we find that either the imagination or the nervous system must be acted upon. In the magnetiser himself, these may remain perfectly passive, and, provided he is capable of adroitly acting either upon the one or the other in a person predisposed to such a species of affection, he will produce those variable phenomena termed magnetic. M. ROSTAN, the author of a singular article upon this subject in the *Dictionnaire de Médecine*, vol. xiii. requires that the magnetic operator should be in good health,—that he should have nothing repulsive about him,—that he should be in the prime of life,—that he should be superior to the person magnetised,—that he should appear to be animated by a spirit of benevolence,—and, lastly, that *a man should be employed to magnetise a woman*, and *vice versa*! We may observe, en passant, that pregnancy is not an uncommon effect of the art!

It is worthy of particular notice, that the most bigotted admirers of this science, as it is called, are compelled to admit that they exert their most skilful efforts in vain upon healthy persons who have no prepossessions in favour of their avocation. In other words, their proselytes are limited to those who are foolish by nature, or infirm from disease.

Passing over any formal enumeration of the magnetic phe-

nomena, which may easily be imagined in all their variety, we come to the eleventh Letter, and must venture to waste a sentence or two upon the strong hold of the true believers in magnetic potency.

"Somnambulism, in all its varieties, has been considered, since the period of M. de Puységur, to afford the most positive evidence of magnetic influence. A magnetiser, with an imposing attitude, a fixed look, stretches forth his hands over his patient, whose body and mind are perhaps enfeebled by suffering, and, after having gained full possession of his imagination, he fatigues his senses by monotonous gestures. The patient gradually falls asleep."

There is here no mystery; the effect might be anticipated: the magnetic fluid is not required. Upon the same principle a child is lulled to rest by fatiguing its senses with some nursery lullaby, or some gentle and oft-repeated motion. That many cases of somnambulism, in the strict definition of the term, have occurred, is very certain; and it is only where persons have been disposed to this kind of imperfect sleep, that the magnetisers have apparently succeeded. They first fatigue the senses, and frequently produce a high state of cerebral excitement, which will be in proportion to the particular idiosyncrasy upon which they have to act, and sleep may follow; but, as it is artificially provoked, and connected with a variety of moral impressions, it is not to be wondered at that somnambulism is the frequent result.

It appears, however, the magnetisers assert that the "magnetic somnambulism" differs from that which occurs from other causes. The following are the stated distinctions:—There exists between the magnetiser and the somnambulist an intimate relation, so that they communicate with, understand and answer each other; whilst the latter is completely isolated from other persons and from external objects. As usual, however, when their part was to be acted in the presence of unbelievers in their necromantic skill, "*le magnétisme fut sans effet, et les magnétiseurs presque confondus.*"

The last part of the subject we shall notice is "the application of animal magnetism in the cure of Disease."

In many parts of the continent, the power of animal magnetism is spoken of with much enthusiasm in various diseases. We have already admitted the possibility of very imposing effects being produced by such means, and have offered what appears to us a rational explanation of them. It may be observed, that it is only in derangements of the nervous system that the most zealous advocates promise any benefit from animal magnetism; and it certainly did not re-

quire any particular proof from them, or any exercise of their art, to establish that which nobody will deny,—that the body is frequently, and in various ways, affected through the agency of the mind. The effects of the well known and justly ridiculed *piperies* of Hohenlohe, and his cures, so much vaunted by the fanatics who have yielded up their senses to his assertions, are to be explained in the same manner.

It is with infinite regret we find the name of Rostan coupled with an absurd tale of a young woman seeing with the back of her neck. Is it possible, after reading his account (in the *Revue Medicale*), that we can approach the labours of this author, on other subjects, without doubting either the soundness of his judgment or the good faith of his statements? We are at all times unwilling to hazard so serious an accusation as that of deliberate misrepresentation, and we will not do it even on the present occasion. Our readers must determine for themselves. But we ask, if M. Rostan and his friend believed that the subject of their experiment, the *magnetised somnambulist*, could tell the hour at which the hands of a watch were placed, when it was close to the back of her neck, as they assert, why was she not exhibited in the presence of the persons who were at the moment anxious to ascertain the truth of the various statements that were made upon the subject? Why was this most extraordinary case not published until all the means of verifying it were lost? To answer a man sincerely, and at the same time civilly, who asserts “I have seen the thing,” is often difficult. We would be inclined to adopt the reply of Fontenelle to the wonderful observations of the philosopher—“*Vous l'avez vu, je le crois; mais si je l'avais vu, j'en douterais.*”

Such is the influence that the magnetic operators are said by M. Rostan to gain over their proselytes, that they follow them “*comme un chien suit son maître.*”

The discussion which has lately taken place at the *Académie Royale de Médecine* upon the subject, is given in the concluding Letter. Like most debates in medical societies, (although we believe many useful hints are thus frequently suggested, and professional zeal kept up,) the argument terminated, after a little amicable wrangling, by a decision that nothing had been decided.

We have stated our belief that animal magnetism is a mere system of juggling. Such also is, to a great extent, the opinion of the author whose work we have just noticed. So long, however, as pretended philosophers and poverty-stricken practitioners are to be met with, who are infected with the *aurei fames*, so long will efforts be occasionally made to impose



upon the credulity of human nature. Had not the subject of animal magnetism at present excited the serious consideration and examination of many respectable men and learned societies upon the continent, we should hardly have ventured to obtrude the subject at all upon the notice of our readers. It is our duty, however, to record not only the practical improvements, but likewise to take an occasional glance at the passing follies, of the day.

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## COLLECTANEA.

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*Floriferus, ut apes, in saltibus omnia libant,  
Omnia nos, itidem, depreciamur aurea dicta.*

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### PATHOLOGY.

*Memoir on Putrid and Gangrenous Fever*, by A. L. I. BAYLE.

—At a time when a new system of Pathology, founded on solidism, rejects every fact which tends to prove the alteration of the animal fluids in certain diseases;—when it is attempted to reduce the immense series of maladies which afflict mankind, to one single primary lesion—*inflammation*;—when Therapeutics, founded on this idea, every where sees only a tendency to inflammation, and thus reduces almost all treatment to the employment of antiphlogistic remedies: at such a time it becomes the duty of every physician to pay undivided attention to clinical observation; to admit among his systematic and exclusive doctrines those only which are confirmed by facts; and to publish the cases which might destroy, confirm, or modify, preconceived opinions. This motive induces me to publish the two following cases; the first communicated to me by M. BLAYNIE, and the second by M. BRÉSCHET. I shall add some other facts of a similar nature, and some experiments on animals, which, although previously published, deserve to be brought together, and offered to the consideration of enlightened practitioners.

CASE I. B——, aged eighteen, tall and slender, pupil at the Veterinary School of Alfort, came to consult me on the 13th of September, 1825, for a pain which had spontaneously come on the preceding night in the left ankle. There was swelling and a little redness round the articulation. Leeches were applied to the part, followed by emollient cataplasms, and quiet enjoined.

14th.—Redness and swelling increased. In the evening, slight shivering, followed by fever.

15th.—Pain more violent, and apparent fluctuation behind the outer ankle. On cutting deep in this situation, nearly an ounce of very thick pus escaped.

16th.—Violent fever, with headache, delirium, irregular motions of the limbs; breathing free; tongue clean, and not red.

17th.—Face pale, expression languid; eyes dull; delirium; no knowledge of his present condition, nor of those around him. Urine scanty; skin cold, covered with copious clammy sweat; pulse 110, small and sharp.

18th, (fifth day of the disease).—Skin studded with an eruption of white pimples,

as large as peas: one, situated on the external part of the left thigh, was as large as a bean, and quite black. For the first time, the patient refused to drink. During the day he lay on his back; great prostration; constant starting of the tendons; breathing oppressed. He died at four P.M.

Dr. RAMON and M. GIRARD, jun. Professor at Alfort, saw the patient several times the day he died, and being, like myself, unable to account for the kind of mischief which caused such severe and sudden symptoms, we agreed to open the body the next day.

*Appearances on dissection.*—The body smelt horribly, and would have been insupportable, but for the precaution of washing it with chlorate of lime. The skin was discoloured, and studded with pimples, having the form and size of peas, and which contained a whitish purulent matter: one of these, as already stated, was as large as a bean, and black. A deep incision in its centre showed that the skin, as well as the subjacent cellular tissue, participated in this gangrenous state. The wound, which was behind the outer ankle of the left limb, did not penetrate into the articulation; but the pus had diffused itself nearly a third of the length of the fibula, and had rendered the extremity carious.

In the *head*, the membranes and brain presented nothing remarkable, excepting that the middle lobe of the right hemisphere was a little softened.

*Thorax:* On opening the chest, there escaped a gangrenous, putrid, and insupportable smell. The lungs were evidently swollen, and entirely filled the two cavities of the chest: they were of a blackish hue, of a firm consistence, as if hepatised. On cutting into them, they exhaled a putrid smell, and a serous fluid exuded; they tore easily, and they were in such a state of disorganisation that neither the ramifications of the bronchiae nor the cellular texture could be recognised. The portion of the pleura which formed the mediastinum was of a deep brown colour; and along the vertebral column, on the left side, were two longitudinal holes, one above the other, about an inch and a half each in diameter: that nearest the diaphragm corresponded to a similar opening on the right side. Their borders were black and ragged, and this portion of the pleura tore with great ease. These two ulcerations crossed the œsophagus. The muscular parietes of this canal were entirely destroyed for an inch and a half in extent, while the mucous membrane was untouched. This membrane, throughout the extent of the œsophagus, was of a deep brown colour; the chlorate of lime, which we were obliged to pour into the lungs, preventing our ascertaining the quantity and nature of the effusion, which no doubt had taken place. The heart was void of blood, but very large: its texture was so soft that the least violence tore it. The membrane lining the right auricle and ventricle was of a purplish red.

*Abdomen:* The liver and spleen were visibly enlarged, black and gangrenous, exhaling a putrid smell, which became stronger the deeper the incisions were made. Their texture had undergone such disorganisation, that their parenchyma was converted into a mass of putridity, easily reduced to rags by the touch of the fingers. The kidneys were sound. The digestive tube, seen externally, had a natural colour, and presented nothing particular from the rectum to the stomach.

This disease in its progress was so irregular and so rapid, that, until light was thrown upon it by the opening of the body, we thought that the greater part of the symptoms were caused by an affection purely cerebral. Having found, on dissection, a gangrenous disorganisation of the principal viscera of the chest and belly, without any premonitory symptoms of inflammation, we presume that such disorder could only proceed from the spontaneous development of a specific virus, which had caused the gangrenous disorganisation of the lungs, liver, spleen, and several places on the lateral part of the mediastinum and œsophagus.

CASE II.—M. Girard, jun. Professor at Alfort,—complexion pale, and rather sallow,—had been long complaining of what he regarded as chronic inflammation of the digestive tube. He complained also frequently of pain and sanguineous congestions in his head. He had accustomed himself to apply leeches, or to be bled,

on the least increase of his habitual state of suffering, which happened often more than once a month.

September 19th, 1825, M. Girard pricked the little finger of his left hand in assisting Dr. Blaynie in opening the body of the subject mentioned in Case I. Soon afterwards a little vesicle, surrounded with an inflammatory circle, appeared on the back of this finger, near its articulation with the metacarpal bone. M. G. irritated this little tumor in opening it with a pin, and afterwards with the point of a lancet. Some serum, at first reddish, then bloody, came from it. The whole limb became painful and swelled. M. Breschet was called in on the third day, and found the patient in a state of great suffering and anxiety. Leeches were applied, and next morning bleeding, during which he had a long-continued fainting fit. The finger was hard, swollen, oedematous, and emphysematous. There were the remains of a vesicle, the sides of which were red and inflamed. The fore-arm was swollen, and had several little inflammatory zones, similar to stains on paper. The affected part was cut into, and cauterised with *nitras argenti*; emollient cataplasms, local mucilaginous fomentations, and diluent drinks, were ordered.

The symptoms seemed to yield to this treatment. M. G. himself always dreaded the issue of the disease. The pains and inflammation of the arm and hand soon returned. Leeches were several times used, and calming narcotic fomentations and poultices sprinkled with laudanum; he had whey for drink; and, as he had much nervous irritability, they gave him, instead of opium, to which he had been habituated for some years, some grains of lactucarium, and a little of the extract of henbane. The inflammatory symptoms of the arm were never severe with regard to swelling and redness, but its sensibility was greatly increased, and the patient uttered loud cries on the slightest pressure. He complained at the same time of gastric and abdominal pains, and there appeared to be a connexion between these last and the state of the arm. The tongue was covered with a whitish coating, its edges slightly red, and the point of a colour a little more deep. The umbilical and epigastric regions were painful on pressure; stools scanty and mucous; skin clammy and moist; pulse frequent. The patient had great cerebral excitation without delirium, speaking rationally, receiving his friends, yet struck with a sense of the danger of his state, and of its fatal event. He was at this time seen by M.M. Royer, Allard, Recumier, Husson, Dupuytren, and Bret. Warm baths were recommended, and gave relief. Leeches were several times applied to the abdomen, as well as poultices and emollient embrocations. Musk was given internally in the form of pills, and glysters.

It is worthy of remark that a pain came on at the articulation of the femur and tibia on the left side, and on the crest of the tibia. This at first resembled acute rheumatism, or deep-seated inflammation of the joint: the least pressure on the fore part of the limb caused the patient to cry out. There was no swelling or inflammatory redness; but two days after there appeared some little softness of the limb, in the point corresponding to the pain, and a careful examination gave a suspicion of pus under the tibial aponeurosis, although there was no evident fluctuation. The place was laid open, and there came forth about a spoonful of a greyish purulent matter, which seemed infiltrated in the cellular tissue between the muscles. The place was twice cauterised with nitrate of silver, and dressed so as to make the wound suppurate. The pain was lessened; no fresh inflammatory symptoms resulted from the cutting or caustic.

Towards the twelfth or fourteenth day, the disease assumed a more alarming aspect: the following symptoms came on:—Headache; intolerance of light; the greatest irritability; frequent irregular delirium; frequency, and sometimes irregularity of pulse; sleeplessness; agitation and subsultus of the tendons. These symptoms went on increasing, particularly the delirium. There was an abundant and very fetid diarrhoea. Baths, affusions, musk, and blisters to the legs, were tried. The patient at times recovered the use of his reason, but soon relapsed into his former state: Breathing became laborious, and the patient died after forty-eight hours of agony.

During the last two or three days, the body of the patient had a very fetid smell. About the middle of the course of the disease, there had been a slight and temporary eruption, and which had the appearance of measles.

The body was opened twenty-four hours after death.

*Head:* The arachnoid appeared moistened by a little more serosity than is usually observed: a layer of this fluid was infiltrated between it and the pia mater. The brain, cerebellum, cerebral protuberance, and spinal marrow, had a firmer consistence than usual, although the cerebral substance was very little injected. The ventricles contained an ounce of yellowish serum.

*Respiratory organs:* Each pleura contained six or eight ounces of a reddish-brown fluid, which appeared to be pure blood, or mixed with very little serosity: the right presented, at the upper part of the thorax, some old cellular adhesions. The lungs remarkably pale, a little greenish in the interior: their structure very crackling, but choked up with a great quantity of frothy serum. The larynx, trachea, and bronchiæ, natural.

*Circulatory organs:* These presented nothing remarkable.

*Digestive organs:* Peritonum pale and sound. Stomach contained some greyish liquid: its mucous membrane of a greyish yellow, and here and there the appearance of being injected; soft. The duodenum showed, throughout nearly all its extent, an emphysema under the mucous membrane; its inner coat raised in little phlyctenæ. Cells of the jejunum the same. The ileum more generally red, and especially towards the ileo-cæcal valve, where the redness was very deep. The large intestine contained gas; no fæces: its mucous membrane of a pale grey, except in some points, where there was a little injection. The colon in descending showed, a little above the sigmoid flexure, a narrowing, occupying three inches in length, and where its calibre was suddenly reduced to a third of that of the portions around it. This stricture appeared to be rather a fault of conformation than the result of disease: its sides, though a little thickened, were not hardened, showing no cicatrix, and was of a pale grey colour. The inner coat of the large intestine was generally thin. The structure of the liver was pale. The gall-bladder distended by thick and ropy bile, of a brown colour: its ducts were free. The pancreas stained with blood. The spleen of a colour like the grounds of wine. The kidneys, like the pancreas, were stained by a kind of ecchymosis; the ureters free. Bladder empty and sound; its mucous membrane white.

*Fluids:* The blood, except a small clot in the aorta, was fluid throughout; less abundant than usual, and showed a number of gaseous bubbles.

CASE III.—A man, whose business was that of flaying dead animals, aged fifty, of a vigorous constitution, but an habitual drunkard, had been sick for six days. He lived in a high, dry, well-aired lodging, and was not in absolute poverty. He complained of great prostration of strength,—when lying on his back, he could scarcely raise his arms; tongue black and dry; breath fetid; look wild; eyes haggard; face pale; of a brownish-yellow colour, which contrasted with the striking redness of the right cheek; skin hot and pungent; urine thick, greyish yellow, and strong smelling; stools involuntary, liquid, bilious, and fetid; breathing slow and quiet; skin and flesh flaccid; pulse irregular, seventy-seven; delirium, but, when the patient's attention was fixed, he could answer questions put to him.

It was discovered that, on the night of August 2d, 1821, he came home drunk: the next morning he complained of headache and nausea, which he attributed to fatigue; however, he killed six horses, which he says had no contagious disease. On August 4th, after killing some horses, which he says were free from any disease, he occupied himself in stretching skins to dry: these skins had lain for several days heaped the one upon the other. In the evening he vomited. At ten o'clock he fainted twice, and was attacked with shivering and violent headache, which continued all night. The next morning he had strong fever, and on the left arm an itchy tumor, which he scratched till it bled. The fever and headache increased; he became delirious. Symptoms were a little easier in the evening, and increased in the night.

The third day, in the morning, slight epistaxis came on, without relief. A surgeon ordered twenty leeches to the temples, which took away a great deal of blood, and the patient again swooned twice. The blood was stopped by compression. The fever continued; the arm became excessively painful, the pain stretching up into the arm-pit; breathing hurried. He was bled. Next day, fever diminished towards evening, but increased in the night.

On the sixth day, the delirium was violent: this was removed by a second bleeding from the arm, and typhomania, and the symptoms before mentioned, came on. The

arm was swollen from the shoulder down to the hand; the tumefaction soft, and feeling like emphysema. On the inner side, about two inches above the bend of the arm, there was a brownish-red shining depression, about the size of a shilling: ten or twelve phyllyctenæ were scattered round this depression. We looked upon the disease as a malignant pustule, and not as erysipelas: in consequence, that part, which was really gangrenous, was scarified, and cauterised by introducing a piece of nitrate of silver. The blood which had been drawn from the arm was dissolved, black, and smelt like putrid flesh: it had only been drawn three hours and a half, when we carried it away, to make the experiments which will be mentioned. Wine, Decoction of Bark with Camphor, and Spiritus Mindereri, were prescribed. During the next night, two pustules appeared on the left thigh.

Seventh day, the state of the patient was very alarming. A potion, with Aqua Cannellæ, Æther, Spiritus Mindereri, and Vinum Cinchonæ. In the evening, the pustules on the thigh were gangrenous: they were cauterised with nitrate of silver.

Tenth day, the state of the patient was the same. In the morning there occurred a slight epistaxis of black dissolved blood. The smell of the patient was so offensive, that it was necessary to use nitric acid fumigations.

Eleventh day, in the morning, vomiting of yellow bile; bilious, liquid, and very fetid stools; clammy sweats on the trunk. Blisters applied to the limbs since the evening before had caused no redness. The tumor on the arm, on which compresses moistened with Vinum Cinchonæ were applied, was less cedematous, redder, but no trace of healthy inflammation appeared round the wide eschar that the caustic had left. The same on the thigh. Antiscorbutic wine, in the dose of a pound, was prescribed to be taken by spoonfuls during the twenty-four hours.

Thirteenth day, typhomania had ceased; pulse was full and regular; strength of the patient increased; healthy inflammation appeared round the eschars; the part of the skin on which blisters had been applied without effect, became red and inflamed. From this time the disease diminished, and, after twenty days of powerfully tonic and stimulating treatment, the patient was convalescent. The re-establishment of his health was rapidly accelerated by cold sponging of the body, with a decoction of sage and vinegar, at first warm, and then cold when his strength increased a little.

*General reflections.*—However numerous the points of difference in the preceding cases, one is struck, on reading them, with certain circumstances, which establish among them an identity of nature. They all tend to prove that there was in the subjects of them an alteration of the humours, and in some sort a putridity of them, which depended, in most cases, on external infection; and that this specific cause, at first concentrated on some limb, was afterwards absorbed, and affected a greater or lesser number of organs, causing various phenomena, which (if nature did not eliminate the poison by a critical effort) ended by giving place to a general contamination of the blood, and to a certain number of inflammatory, hemorrhagic, or gangrenous alterations of different parts. Thus, to prove the putridity and alteration of the blood, we see in the subject of the first case, by M. Blaynie, an exhalation towards the conclusion of an infected smell, and after death a general putridity. The patient of M. Breschet had offensive and putrid stools, and a smell of the same kind from his body, during the last days of the disease. The flayer, whose case is detailed, had the same. This fact is of the highest importance, as it evidently proves that the blood of the patient was already tainted with a certain degree of putrescence. Indeed, we have seen that the injection of blood taken from this patient into

the veins of two animals; caused a mortal disease; and that the counter-proof, made on other animals with the blood of an ordinary patient, was followed by no unpleasant result.

The experiments of M. Gaspard confirm all these facts, in showing us the development of putrid diseases in animals into whose veins corrupted animal or vegetable matter has been injected. The same experiments prove also the efforts of nature to eliminate deleterious matters; as we see in the first cases, in which the substances injected had been less abundant, the re-establishment of health quickly followed the expulsion of frequent and very fetid stools. We may see also a tendency in nature to produce a crisis, (which was insufficient, it is true,) in the abscesses formed in different parts.

The tendency to gangrene is manifest in all the preceding cases. In the first, the gangrenous softening of the lungs of the liver and spleen, and two ulcerations of the posterior mediastinum and œsophagus; in the second, the small and fetid stools; in the third, phlyctenæ, and then black tubercles on the face; in the fourth, the infected smell, putrid dissolution of the blood, and brownish phlyctenæ on different parts. In fine, in the experiments of M. Gaspard and M. Gendrin, brownish and black spots on the lungs, &c.

What are the organs destroyed by the septic miasma circulating in the blood of subjects affected with putrid fever? Always the mucous membrane of the digestive organs, say certain physiologists. For ourselves, we go no further than the cases which are detailed above: thus, in the first, the gastro-pulmonary mucous membrane was only red, while the lungs, liver, and spleen, were disorganised by gangrene; in the second, the most important injuries existed in the membranes of the brain and the chest, the mucous membrane of the intestines being only injected; in the third, that membrane was sound. In fine, in the animals submitted to experiment, the intestines, it is true, were often affected, but other organs were always simultaneously diseased.

With regard to the treatment used in the cases above mentioned, when it is considered that it consisted almost entirely in the employment of antiphlogistics, and that the only patient who was cured began to mend when the most powerful tonic and stimulating plan was adopted,—we shall not be inclined to make it a rule to employ antiphlogistics in all diseases, and particularly not in putrid fever. If we consult authors, and compare numerous cases to be found in the works of Hoffman, Huxham, Leclercq de la Cloture, Pringle, Monro, Morton, &c. with those we have recited, we must be convinced that there is a striking analogy between them, and that they all owe their origin to one common cause,—namely, a septic alteration of the humours.

From the preceding cases, and from all those that we meet with on record, may be concluded—

1st. That the blood is susceptible of being primitively altered,

and of undergoing a certain degree of putridity, either spontaneously or (which appears more frequently the case) under the influence of an external miasmatic infection.

2d. That such humoral depravation may occasion inflammatory or gangrenous affections of one or more organs, without its appearing to affect constantly the same.

3d. That gastro-enteritis is not constant in putrid fever, since, in the cases mentioned in this Memoir, it only showed itself once. (*Revue Medicale.*)

*Experiments on Animals, showing the result of Injecting various Putrid Substances.*—M. GENDRIN made some experiments with the blood which had been lost by the subject of Case III. given above.

Experiment 1st.—One ounce of the blood, after being eight hours drawn, was injected into the cellular tissue of the groin of a cat. For an hour and a half, the animal was not in the least incommoded: he was offered drink, and took it with greediness. After an hour and fifty minutes, trembling of the lower lip, and soon after evident nausea. At the end of two hours, considerable vomiting of yellow bile, with great effort. Two and a half hours, very copious vomiting of greenish bile; the animal laid itself on its side, and uttered plaintive cries on each inspiration, which appeared difficult and painful. The throat was half open, and the tongue between the teeth. The animal was set on his feet several times, and endeavoured to walk, but it soon stopped and laid itself down again. Six hours after the injection, the heat of the skin and ears was considerable; pulse small, frequent, and irregular; the tongue dry, and hanging out between the opened jaws. The animal died six hours and fifty minutes after the injection, with slight convulsive movements, in a state of complete prostration. We examined the body immediately. The skin in the groin was discoloured; the cellular tissue soft, pulpy, of a yellowish colour: it had a fetid smell, and was studded with little red marks. The mucous membrane of the stomach and intestines sound; that of the trachea and bronchiæ, tinged of a reddish brown, was neither thickened nor inflamed. The lungs contained black blood, especially the left, and were studded with spots. The blood was liquid and black, even in the arteries. There were in the left pleura about two ounces of black and very serous blood. The heart was flaccid and soft, as if boiled, particularly the left side of it. No change in the brain or spinal marrow.

Experiment 2d.—Half an ounce of the blood lost by epistaxis was injected into the crural vein of a little dog: it had been five or six hours since it was lost by the patient; it had a heavy smell, not quite fetid; he agitated it strongly, to give it more liquidity. Four hours after the injection, the animal had nausea, and a vomiting of greenish bile: he was dejected; pulse frequent. Six hours, completely dejected; lying on its side, its mouth in the

brownish stuff that it had vomited; the jaws closed. Seven hours after the injection, it died. On opening the body, one hour after death, it showed livid and black spots on the lungs, caused, as in the subject of the former experiment, by ecchymoses. The blood was black and liquid in all the vessels. The mucous membrane of the bronchiæ was brownish.

Experiment 3d. — M. GASPARD injected into the jugular vein of a dog about two ounces of white and fetid pus: soon after the animal fell into syncope, and vomited, which occurred six times in the course of the day. An hour after, an evacuation of excrement, with thick clouded urine, with slight relief. In the evening, its paws stretched out; breathing not to be discerned; pulse very weak. Ten hours after the experiment, this dog passed some black, liquid, extremely fetid stools, which gave relief, and the dog promptly recovered.

Experiment 4th. — The same experimentalist injected into the other jugular of the same dog nearly three drachms of the same pus; and at the end of a short time there came on, as in the first experiment, fainting, vomiting, frequent evacuation of urine; and, twelve hours after the injection, very watery, white, fetid stools; and, in twenty-four hours, death took place. On dissection, no remarkable change in the intestines or other organs.

Experiment 5th. — M. Gaspard repeated these two experiments on a pointer bitch, and attained each time similar results. After the first injection, the animal rallied; but it died after the second, made at an interval of two days. On dissection, no visible alteration, excepting that the inferior lobes of the lungs were inflamed, not crackling, almost hepatised, and sunk in water. — M. Gaspard several times repeated these experiments, and always with nearly the same results.

Experiment 6th. — He injected into the jugular of a little bitch half an ounce of fetid liquid, arising from the simultaneous putrefaction of beef and blood. In a moment afterwards, movements resembling the act of swallowing; soon after, dyspnoea, sinking, evacuation of excrement and urine. At the end of an hour, prostration of strength; gelatinous, bloody, and frequent stools; redness of the conjunctiva; belly tender to the touch; gradual diminution of strength; bilious vomiting; and death three hours after the injection. On opening the body, still warm, the lungs were found inflamed in a great degree, or rather gorged, not crepitating, of a violet or black colour, with many petechial blotches; which existed also in the tissue of the left ventricle of the heart, in the spleen, mesenteric glands, gall-bladder, and even in the subcutaneous cellular tissue. The mucous membrane of the stomach slightly red; that of the intestines, and chiefly of the duodenum and rectum, having a livid colour, with black points, covered with a gelatinous and bloody stuff, like the washings of flesh.

Experiment 7th. — M. Gaspard repeated the same experiment on



a pretty large dog. Soon afterwards, evacuation of very fetid excrements, with much urine; frequent effort to expel fœces; breathing accelerated and deep; pulse small and frequent; sinking of strength. At the end of an hour, a kind of diarrhœa, marked by liquid, sanious, and fetid stools, which continued till death occurred, two hours and a half after the injection. On dissection of the body, yet warm, similar appearances were found as in the last experiment; the lungs studded with lucid, brownish-black spots, as large as a farthing; intestinal canal filled with mucous sanies, similar to that in the stools; mucous membrane of the intestines equally red, livid, and having an hemorrhagic inflammatory appearance. (*Ibid.*)

*Fœtus in Fœtu.*—In the last Number of GRAFE and WALTHER'S Journal, a case is related of a woman who was delivered of a dead male child, between the sixth and seventh month of pregnancy; at the posterior part of which, where the anus is usually situated, was appended a bag of skin. Upon examining its contents, which were almost in a state of putrefaction, they were found to consist of a placenta and a dead fœtus, apparently between the fourth and fifth month. The connexion between the fœtus and placenta was not to be clearly distinguished. It was not possible to make out all the parts of the former, in consequence of putrefaction. The head, brain, face, os sacrum, &c. lay in a confused mass of destruction. The bag of skin, which had supplied the place of an uterus, was not connected either with the pelvic or abdominal cavity, or with the spinal marrow, of the more perfectly formed fœtus. The rectum of the latter terminated in a cul-de-sac within the pelvis.

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#### PRACTICAL MEDICINE.

*On the Employment of Acetate of Morphia in Uterine Hemorrhagies;* by Dr. FABRE.—Mlle. L—, aged thirty-two, suffered during two years from hemorrhagy from the uterus every month, which considerably weakened a constitution originally vigorous, as evinced by her faded yellow complexion, and by continual pains in the hypogastric region and thighs, with frequent shiverings.—In the month of November, 1825, she sent for me, when I found her in bed, complaining of severe pain in her throat; the mouth was covered with aphthæ; tonsils swollen; the pharynx very painful; difficulty in swallowing, and sense of suffocation. She was at this time under her habitual monthly hemorrhage. Fifteen leeches were applied to the neck, and gave some relief: eighteen more were applied in the evening. Next day, the affection of the throat was greatly better, and the aphthæ soon disappeared. Low diet was continued, but still the hemorrhage remained the same; and the limbs became œdematous, even to the middle of the thighs. The syrup of the acetate of morphia was prescribed, in doses of three coffee-spoonfuls daily. Under this treatment the

hemorrhagy diminished. The dose was gradually increased till the discharge ceased. She was soon able to go about again. This happened several times, the same measures each time being successful, until at last the menstrual discharge became regular; her complexion resumed a healthy look; pain was removed; the œdematous swelling disappeared; and she was perfectly cured.

Other cases are mentioned where the syrup of acetate of morphia was equally successful; and both M. FABRE and his colleague M. DUCROS speak confidently of its virtues. (*Journal Complémentaire.*)

#### SURGERY.

*Operation of Tracheotomy for the Removal of a foreign Body in the Trachea.*—The following case is interesting, when taken in connexion with Dr. WEBSTER's case given in the present Number. It is related by Dr. ATLEE, in the American Medical Review.

On Wednesday noon, August 11th, I was consulted by a son of Mr. Dinsmore, aged ten, who had that morning, while running, put a button-mole into his mouth, which, during respiration, was drawn into the trachea. He complained of uneasiness during respiration, attended with a very slight rattling, and pointed to the depression at the upper part of the sternum as the situation of the mole. He informed me that he had swallowed bread, and many other articles recommended to him, without effect. Upon requesting him to cough, a rattling was heard, and soon after a sudden check to expiration denoted the lodgment of the button against the lower surface of the glottis, which required a sudden and violent effort of inspiration to remove the sense of suffocation. Being an intelligent boy, I explained to him the nature of the case and the difficulty of dislodgment without an operation, and told him to inform his parents. I gave him an emetic, with the hope that the violent efforts at expiration produced by it might throw the mole through the rima glottidis. Next morning I was sent for by his mother, who told me that during the night he had two or three severe spells of coughing, which almost amounted to suffocation, with very great anxiety and alarm. These were relieved by placing him in an upright position, and keeping him so until morning. After explaining to her (the father being absent,) the nature of the accident,—the improbability of its removal through the natural passages,—the danger of delay producing great irritation, inflammation, and its consequences,—the safety, and almost certainty of success from an operation, both she and the boy expressed their willingness to submit to any mode of relief I thought proper to use.

Having given an opium pill about ten o'clock, to tranquillise the system, and ease the cough if possible, the patient was placed upon a dining-table, with his head bent over the edge, and held firmly by an assistant. An incision was made through the integuments, about an inch and a half long, extending downwards from above the cricoid cartilage. The sterno-hyoid and thyroid muscles were then separated and exposed, the inferior thyroid veins lying upon the trachea and passing down to the transverse vein. After exposing the trachea, a sharp-pointed bistoury was passed through it about the third ring, and extended downwards about three-quarters of an inch. From the symptoms previous to the operation, I concluded that the mole must lie upon the bifurcation of the trachea, its diameter (nearly half an inch) being too great to admit its entrance into the bronchiæ, and I depended more upon the expulsive power of the lungs than the use of forceps. Holding open the orifice of the wound, I requested him to cough: this he did several times violently, but in vain. Suspecting that it might have passed through the chink, and swallowed during the alarm of the operation, I shut up the trachea and the wound, and told him to cough again: the mole was immediately thrown up against the chordæ vocales, and he exclaimed, "It is there yet." Being satisfied as to its presence, I passed a probe through the wound as far as the bifurcation

without feeling the mole, but the probe caused a violent effort to cough, when the probe was withdrawn, and immediately after it the mole was thrown through the wound several feet from me. The wound was closed by two interrupted sutures and adhesive straps, and the boy, relieved of all his uneasy sensations, was put to bed. (The boy did well.)

*On the Use of the Probe in any Operation in which a punctured Artery is to be tied.*—Connected with the very interesting case of wound of the carotid artery, in our last Number, we beg to introduce the following observations, from Mr. HUTCHISON's work on Surgery:—

When an artery is wounded by any sharp instrument, it will, I am sure, occur to every good surgeon that the best practice will be to tie the vessel above and below the punctured part, for reasons too obvious to notice; although it is not to be denied but that, in some situations, this may be a very difficult task. A task of such difficulty, we are informed, lately occurred in a large government hospital, in which the femoral artery was tied considerably above the punctured part, and which succeeded without any after-hemorrhage ensuing. That this method will not often so succeed, the knowledge we possess of the circulation by anastomosis too sufficiently proves, to authorise such a practice, when it is in our power to tie the vessel above and below the punctured part.

In cases where an artery is punctured by a sharp instrument, and it is our intention to tie it as recommended above, I cannot too strongly impress upon the minds of young surgeons the great facility with which the operation will be completed by the assistance of a common probe, introduced into the aperture of the vessel after the division of the external parts. The relation of the subjoined case will sufficiently illustrate the principle.

Thomas Mellifont, a seaman of the York (74), on the 16th of March, 1813, was attacked with incipient symptoms of pneumonia, for which the surgeon of the ship directed him to be bled. The assistant who performed the operation, owing to a pitch of the ship, then under sail, slit open the brachial artery more than a quarter of an inch in an oblique direction. The hemorrhage was suppressed by a thick compress and roller until the 17th, when the patient was placed under my care.

On the bandage and compress being removed, the blood gushed out in a saltus, and in larger volume than I supposed it possibly could have issued from the artery, if the vessel had been completely divided in a transversa direction. Pressure was therefore made upon the artery near the axilla, so as to stop the circulation of the vessel below, when I made an incision two inches in length over the puncture, and in the direction of the vessel, until, by gentle scratches with the scalpel, the punctured part of the artery was reached. Before we could clearly see the aperture made in the artery, however, three small branches were tied, which bled freely and obscured our view. A probe was now passed through the opening into the canal of the artery upwards, which enabled us to divide

the vessel completely at this part, to raise the divided upper end into which the probe had been introduced, and to detach it a little way from the great radial nerve and its cellular connexions, until we could lay hold of it with a pair of artery forceps, by which it was drawn downwards, and the artery firmly tied with a ligature, in the same manner as in an amputated stump. In detaching the lower divided end of the artery with the probe introduced, a few fibres of the tendon of the biceps were necessarily divided, and a ligature was in like manner applied here.

The wound was cleared of blood, and the sides were brought together by slips of sticking plaster. The ligatures came away in a few days, the wound very soon cicatrised, and left the patient in as full possession of the use of his arm as if no such accident had occurred, and he was discharged to his duty.

In the year 1818, I performed the same operation, and for the same accident, on a patient of the Westminster General Dispensary. The operation in this case was conducted precisely in the same manner as that just described; and the great utility of the probe was here equally apparent. This man also recovered the perfect use of his arm in a very short time.

*Extirpation of the Testicle, in a Patient with a large Scrotal Rupture on the same side.*—Dr. WEDEMEYER, of Hanover, lately removed the left testicle in a patient who had also, on the same side, a reducible scrotal rupture, of considerable magnitude. The only peculiarity in the operation was the care that was required to avoid injuring the hernial sac. It is worthy, however, of observation, that the rupture, which was reduced at the time of the operation, did not subsequently protrude. Considerable inflammation supervened after the operation, and it is presumed that the descent of the intestine was prevented by adhesions formed during its process, in the track through which the rupture had originally passed. (*Journal für Chirurgie*, band ix. stuck i.)

*Treatment of Syphilis without Mercury.*—A series of experiments, illustrative of the non-mercurial treatment of syphilis, have lately been made by Dr. GUNTHER, of Hamburg; and the results differ but little from those which have been derived by many surgeons of this country. Bleeding, low diet, and perfect rest, were the means principally employed. If the patients were anxious for a rapid cure, mercury was exhibited. In many cases it was found that buboes dispersed by pressure, even when matter could be distinctly felt in them. In females, chancres healed in from seven to twenty-one days; in men, they required from fourteen days to a month. (*Ibid.*)

## INTELLIGENCE.

## MONTHLY REPORT OF PREVALENT DISEASES.

THE close, hot, and damp weather, which has prevailed since our last report, has brought on a recurrence of those bowel-complaints which were so rife during the heats of summer. We mentioned last month that Fever had begun to make its appearance, and we hinted at the probability of the epidemic increasing: this accordingly has taken place, and fever, of a low typhoid character, is at present more prevalent in the metropolis than for some years past. The most remarkable feature in the disease is a tendency to assume, after a certain time, a remittent, or even intermittent type, and to run rather a lengthened course. We have seen no cases in which general blood-letting has been indicated; and, although symptoms of local determination have for the most part been present, yet the large proportion of those who have recovered under the use of free purging, and the application of leeches to parts which appeared to labour, has fully justified the conclusion that the treatment employed was not inefficacious. The present state of the atmosphere is favourable to the nurture of the fever, and it is therefore to be feared that we shall have future occasion to advert to the subject.

It has likewise fallen to the lot of the writer to see a considerable number of individuals, labouring under Pulmonary Consumption, terminate their lingering existence during the past month, justifying the common saying, that "they fall with the leaf." Although this has doubtless been in part accidental, yet almost every medical writer bears testimony to the greater number of deaths from this disease which occur during the irregular weather of spring and autumn, than during the steady heat or cold of summer and winter.

The most interesting individual cases observed by the writer since last report, have been one of Tertian Ague, cut short by four grains of Sulphate of Quina; one of general Dropsy after Scarlatina, with epileptic fits, apparently from effusion into the brain, which was much benefited by general and local bleeding; and one of a *Blue Boy*, which, it is scarcely necessary to add, has not been much relieved by any treatment.

October 25th.

\* *Plagiarism from the London Medical and Physical Journal.*—We appeal to our readers, and to all our brother editors, whether we be not of a very peaceable disposition,—taking all the praise bestowed upon us with the utmost complacency, and bearing censure "with a patient shrug." Indeed, it is not a little gratifying to perceive how much some other Journalists find to praise, to coudemn, or to extract, in the pages of the "Yellow Book." We confess, however, that there is one Journal which we think has used us ill,—it is the Edinburgh Journal of Medical Science. In the fourth and last Number of this are contained two papers,—one on Lithotomy, by Mr. SHAW, of the Middlesex Hospital; the other a remarkable case of Aneurism, which occurred to Mr. CHARLES BELL: the former is placed under the head of "Original Communications," and is said by the editor of the publication in question to be "*one of the most interesting in its details, and valuable in its consequences, that it has been at any time our duty to put on record.*"—Now, it will scarcely be credited that both these papers, as well as the engravings which accompany them, are taken, without acknowledgment, from the London Medical and Physical Journal.

So little were we disposed to suspect our northern contemporary of bad faith, that we at first believed (seeing that his "*original department*" was almost entirely made up of papers from other works,) that the reference had been accidentally omitted; but no exertion of charity could enable us to put this construction upon the matter, when we found a second paper, and a second engraving, in the same Number, likewise without any kind of acknowledgment. If it answers his purpose, let him say, "the London Medical and Physical Journal contains so

\* As we perceive that the plagiarism is also mentioned in the advertisement of the present Number, inserted in the Newspapers, we take the opportunity of stating that all advertisements about the Journal come from the proprietors, not the—EDITOR.

much good matter, that we cannot do better than fill up our pages with its contents; or, if he likes it better, let him say that the Journal is a bad one, and illustrate his position by extracting the communications of some of the most distinguished practitioners in the metropolis: in neither case should we complain. But do not let him talk of putting on record "most interesting" and "valuable" papers, which we have previously published. We trust that our brother editor will see the impolicy, not to say impropriety, of the line of conduct of which we complain: in which case, we beg respectfully to say that we have no bad feeling whatever towards him; but if not, we would just hint that we, too, come from the north of the Tweed, and have not forgotten our national motto.

*Letter from a Fellow of the College of Physicians, on the Jealousies of the Licentiates.*—Sir, As I perceive that the question respecting the Museum of the College of Surgeons, which was mentioned last month, for the second time in your Journal, is not yet understood; and as I am sure, from the uniform character of your observations on the College of Physicians, that you have no wish to promote dissension between the Fellows and Licentiates, I am induced to address you, in the hope that I may contribute towards clearing away what remains of misunderstanding on this subject.

It appears, in fact, that the whole discussion respecting the right of admitting visitors into the museum of the College of Surgeons, has arisen from a mistaken supposition that the trustees had the power of forming regulations respecting it, and had actually exercised that power in excluding the Licentiates from the privilege of introducing others, and allowing them only the right of personal admission.

Now, Sir, you will find on inquiry that, so far from this being the case, the trustees were appointed only to preserve the existing constitution of the museum, and not to legislate respecting it; and that all they did on this occasion was to promulgate the original regulation, or "Treasury minute," as it is called, which was delivered, with the museum, to the College of Surgeons, by the Lords of the Treasury.\* And I think you will allow that, if we look at the conduct of the trustees with a due reference to the fact just stated, we shall have reason to say that those officers, so far from being blameable, deserve much credit for making public a regulation, valuable in itself, whatever defects it may have, which had lain completely dormant ever since the establishment of the museum.

Permit me to take this opportunity of referring also, in a few words, to the remarks of a most respectable quarterly Journalist, on the subject of the unkind feeling which is alleged to subsist amongst the Licentiates towards the Fellows of the College. There is, I assure you, no such disposition amongst the Fellows towards their brethren of the Scottish or foreign universities; nor can I see any reason for its prevalence amongst the Licentiates. It is true that, at the west end of the town, a large portion of the best medical practice has generally fallen to the share of the Fellows. But it can scarcely be supposed that the fellowship itself is the cause of this success; for the distinction between Fellow and Licentiate is not understood by the public. If the Fellows have any advantage amongst the higher classes, (I mean the gentry of England,) this evidently arises from their being, for the most part, educated with and early known to that class, and therefore, per.

\* We beg to say that, had they taken the trouble to offer this explanation at once, we should not have thought it necessary to comment upon the subject at all.—A circumstance occurred at a meeting of the trustees which hurt the feelings of the Licentiates, (morbidly irritable, perhaps, in consequence of their exclusion from College privileges:)—it was suffered to go to the world without any explanation; and, although we stated the feelings of the profession upon the subject, and asked for explanation, (unwilling to believe the Censors capable of illiberality,) yet no notice was taken until the next Number of our Journal was completed; and even then the letter addressed to the editor was so deficient in perspicuity as to render its meaning ambiguous, while it reflected on him as requiring what no "liberal and intelligent person" would deem necessary. It must be acknowledged that we seldom meddle with medical politics, and it is probably this circumstance which made our remarks be so much more keenly felt than those of others. We shall only add, that, as we do not wantonly enter into such discussions, so they will find themselves mistaken who suppose that, having done so, we are to be deterred from our duty by any consideration whatever. (Editor.)

haps, being capable, on the whole, of a more ready assimilation to them in manner and feeling.

Besides, we may allow that there may be a disposition amongst the graduates of our own universities to assist one another, arising from those early associations which, in every profession in England, connects together individuals who have had the same education.

Now, if these be the true causes of the advantages which English graduates seem to enjoy, it is evident that they would still possess them if the College of Physicians were extinguished, or if every practising physician were called a Fellow of the College. What, then, is to be gained by perpetually charging on that body the effects of a distinction in truth quite independent of it?—a distinction which, I am disposed to think, would not excite any jealousy on the part of the Licentiates, if it were not for the qualification known to be necessary for its attainment: I mean an English education leading to an English degree.

We have often heard lately of the monopoly of the College of Physicians, but I am sure you have too much justice to promote so groundless a clamour. The College licenses the graduate of every university in Christendom who is found competent to practise, and places him, as to the privilege of acting as a physician, on an absolute equality with any of its Fellows. It only reserves, with some modifications to the graduates of the English universities, certain executive offices (which are miserably paid) in the English College of Physicians; a reservation which appears to me to be neither unreasonable in itself, nor calculated to give to the Fellow any advantage over the Licentiate in practice, independently of the circumstances above mentioned.

Whether any change might be advantageously made in the mode of electing Fellows, is a question which I will not enter upon here. But I can say with truth, that there is no want of liberal feeling amongst the Fellows of the College upon this or any other point touching the good of the profession. I am satisfied, however, that, should the fellowship cease to be generally a mark of an English degree, it would cease to be a desirable object with many of those who are now anxious to obtain it.

Allow me to trouble you, in conclusion, with a few words on the subject of the hostility which is said to exist between the Fellows and Licentiates, and to threaten some great disturbance in the profession. I cannot but deprecate such remarks as these, which appear to lead to no result whatever, except the excitement of useless jealousy between those who ought to live on good terms with each other. For I think it may be confidently said, that, *as long as the College of Physicians persists in the liberal system of admitting the graduates of every university in the world to practise physic, in all respects as freely as the Fellows, (after an examination similar to that which is submitted to by English graduates,) it has nothing to apprehend, even in this enlightened age, from the opposition of any body of men whatever.*

SOCIUS.

*List of New Officers of the College of Physicians.*—The following names have been added during the past year to the list of Fellows and Licentiates of the College of Physicians:

*Fellows.*—Dr. Thomas Watson, Henrietta-street, Cavendish-square; Dr. George Leith Roupell, Great Ormond-street; Dr. Richard Prichard Smith, Reading; and Dr. John Spurgin, Guildford-street.

*Licentiates.*—Dr. William Speir, Bartlett's Buildings; Dr. Samuel Millar; Dr. Thomas Hodgkin, New Broad-street; Dr. Richard Davie, Leamington; Dr. P. Frederick de Jersey; Dr. Aeneas M'Andrew, Great Surry-street, Blackfriars; Dr. Charles Lush, Leadenhall-street; Dr. Francis Boot, Gower-street; Dr. John Wilton, Upminster; Dr. John Forbes, Chichester; Dr. George G. Sigmond, Dover-street; Dr. Charles Phillips, Union-street, Southwark; Dr. George B. Waddell, Charlotte-street, Blackfriars; Dr. Whitlock Nicholl, Old Burlington-street; Dr. Jas. Clark; Dr. Jas. Scott, Haslar Hospital; and Dr. C. Agar Hunt, Richmond.

*The Commissioners appointed under the "Act for Regulating Mud-houses."*—Sir H. Halford, Bart., Dr. Thompson, Dr. Yeats, Dr. Young, Dr. Macmichael, the Secretary, Dr. Bright, Curators of the Museum, the President, the Censors, Dr. Ager, Sir G. Tuthill, Dr. Paris, and Dr. Hawkins.

*Censors for the present year.*—Dr. Lambe, Dr. Cope, Dr. Southey, Dr. Hewett.

*Medical Provident Institution of Scotland.*—This institution deserves the attention of the profession, and we shall be happy to forward its objects in any way that may be in our power: with this view, we give insertion to the following official account of it.

The committee appointed by the meeting of 23d August (Professor Jameson, Dr. Morison, Dr. Beilby, Dr. Gairdner, Dr. Milligan, Dr. Wood, Dr. Poole, Dr. Greville, Mr. Lizars, Dr. Campbell, Mr. George White, Dr. Spens, Dr. Borthwick, and Dr. Millar, of Edinburgh; Dr. Grace, and Dr. Mudie, of St. Andrew's; Dr. Spence, of Cupar; Dr. Walter Graham, of Dalkeith; and Mr. Allison, of Leith,) having met, and deliberated upon the description of benefits to be granted by this institution, were of opinion that it should embrace all those specified in a paper formerly printed and circulated among the members of the profession, under the title of "Hints with a view to the Formation of a Society among the Medical Profession of Scotland;" but that it shall be optional to take any one or more of them. These benefits are as follows:

1. Annuities payable weekly or monthly during professional incapacity, succeeded by annuities certain in old age.
2. Annuities in old age, unconnected with any benefit during professional incapacity.
3. The assurance of sums payable at death, but convertible at the option of the assured into annuities payable during their own lives, or the lives of their widows or nominees.
4. Annuities to widows or nominees, unconnected with life assurance.
5. Endowments for children in the form of a tontine;—the accumulated fund of each class to be divided among the survivors at different ages, not exceeding that of twenty-one, so as to provide for their education, and setting out in the world.

The committee have also had under their consideration the expediency of receiving small sums from their members, to be accumulated at compound interest, and the whole proceeds returned to them after a certain period.

The institution would thus unite in their scheme all the benefits now obtainable from, 1st, Friendly Societies; 2d, Life Assurance Companies; and 3d, Saving Banks. It has also been suggested that members might be accommodated with certain sums on loan, on security of their previous payments to the funds of the institution.

These several departments of business will be kept entirely distinct, and any surplus that may accrue on any one of the funds will be exclusively appropriated to the benefit of those who have contributed to such fund; while there will be a great comparative saving in the expence of management, by combining all these branches in one scheme.

Some of these benefits, it is well known, are not attainable at present from any existing institution; and others, such as life assurance and widows' annuities, have not hitherto been presented to the public in so beneficial a form. A person who makes an assurance on his own life, for instance, with the present companies, has no other choice than to continue his annual payments till death, or lose entirely, or in a great measure, all that he has already paid: he must either forfeit his policy, or dispose of it at a great disadvantage. In this institution, on the other hand, he will have the option, after attaining a certain age, of converting the full value of his policy into one or other of the following annuities:—1, An annuity for the rest of his own life; or, 2, an annuity for the joint lives of himself and wife, or other nominee, and for the life of the survivor; or, 3, an annuity for his widow or nominee.

As there will be no body of proprietors distinct from the members, the whole funds will be shared among the latter, according to their respective rights and interest; while they will incur no responsibility beyond the sums they have agreed to contribute.

As a few weeks must elapse before the necessary tables of payments and benefits can be prepared, the following approximations, and which are to be considered merely as such, are submitted in the mean time.

An yearly payment of *two pounds twelve shillings*, commencing at the age of 21, and continued till 60, will entitle to an annuity during professional incapacity, at the rate of *one pound* per week till 60, and an annuity certain of *twenty-six pounds* for the remainder of life; and an annual payment of *five guineas* will purchase the right to double these sums, or *two pounds* per week during professional incapacity, and an annuity of *fifty-two pounds* for life after 60. Thus, for a payment not ex-



ceding *one shilling* per week in the one case, and about *two shillings* in the other, a member entering at the age of 21 will be assured against the privations of sickness, infirmity, and old age, through the remainder of life. Those who enter at a higher age than 21, will of course be required to make a corresponding increase in the annual payment.

Again, a member assuring 1000*l.* upon his life at the age of 25, at an annual premium of about *two guineas per cent.*, will have the option either to continue his payments till death, and leave this sum to be paid then, in any way he may think proper; or, at the age of 60, he may discontinue his payments, and convert his policy into one or other of the following annuities:—1, An annuity of *thirty five pounds* for the remainder of his own life, payable half-yearly, and down to the moment of death; or, 2, an annuity of *twenty-six pounds* during the joint life of himself and wife, or other nominee, five years younger than himself, and for the life of the survivor, and payable as above; or, 3, an annuity of *seventy-five pounds* for the life of his widow, or nominee; the difference of age and the payment of the annuity being as before.

But, with a view to the expence necessarily incurred at death, a full year's annuity will be paid to the representatives of the deceased, over and above what may be due at the termination of the life, whenever that may happen.

All the benefits dependent upon life or health may be purchased either by one single payment, or by an annual payment continued for seven, fourteen, or twenty-one years only.

The committee, in submitting this statement to the members of the profession, do not feel it necessary at present to enter into further details. The scheme, in all its parts, requires only to be understood to recommend itself to their support and encouragement, whatever may be the rank they hold, and whether they do or do not mean themselves to participate in its peculiar advantages.

Agents will be appointed throughout the country, from whom, in a short time, information regarding the necessary tables and arrangements may be received, and to whom communications and proposals may be addressed.

Edinburgh; 23d August, 1826.

JAS. CLEGHORN, *Secretary.*

*Literary Notice.*—Mr. WILLIAM BARRETT MARSHALL, Assistant Surgeon R.N., Honorary M.D. of the University of Gottingen, and Author of "Tears for Pity," proposes to publish, (as soon as a sufficient number of subscribers have been obtained to defray the expenses of publication,) in demy 12mo. price 5s. "An Essay on Medical Education, in which the relative Importance of the various accessory Sciences is ascertained, and the extent to which each separate Science, or Branch of general Knowledge, should be cultivated, to afford the highest degree of Usefulness in the Healing Art. Dedicated, by permission, to the Medical Commissioners of His Majesty's Navy."—To the original Essay, the Associated Apothecaries and Surgeon-Apothecaries of England and Wales awarded their gold-medal, on the 7th of July, 1824.

## MONTHLY LIST OF MEDICAL BOOKS.

[No books can be entered on this List except those sent to us for the purpose; as, in the list hitherto transmitted, the names of works have frequently been given as published, which have not appeared for weeks, or even months, after.]

An Essay on Morbid Sensibility of the Stomach and Bowels, as the Proximate Cause or Characteristic Condition of Indigestion, Nervous Irritability, Mental Despondency, Hypochondriasis, &c. &c. To which are prefixed, Observations on the Diseases and Regimen of Invalids, on their Return from hot and unhealthy Climates. By JAMES JOHNSON, M.D.—London, 1827.

Manual of Gymnastics.—Royal 18mo. 6d.

Observations on the Preparatory Education of Candidates for the Degree of Doctor of Medicine, in the Scottish Universities. Humbly submitted to the Consideration of His Majesty's Commissioners for Visiting the Universities and Colleges of Scotland.—1826.

On Galvanism, with Observations on its Chemical Properties and Medical Efficacy in Chronic Diseases, with Practical Illustrations: also Remarks on some auxiliary Remedies. With Plates. By M. LA BEAUME.—London, 1826.

A Small Tract, consisting of Practical Observations on the following Subjects:—  
1. On the present State of Medicine. 2. On the Causes which impede the Progress of Medicine. 3. On Pulmonary Consumption. 4. On the Treatment of Wounds and Ulcers, and Hemorrhage. 5. Observations on Fractures, Dislocations, &c. 6. On the London Pharmacopœia. By RICHARD WALKER, Surgeon-Apothecary, Oxford.—1826.

Manual of Pathology; containing the Symptoms, Diagnosis, and Morbid Characters of Diseases: together with an Exposition of the different Methods of Examination, applicable to Affections of the Head, Chest, and Abdomen. By L. MARTINET, D.M.P. Translated, with Notes and Additions, by JONES QUAIN, A.B.—London, 1826.

### METEOROLOGICAL JOURNAL,

From September 20th, to October 20th, 1826.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

Sept.	Moon.	Rain gauge.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	M.M.	M.N.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			60	64	62	29.76	29.86	92	76	NE	NE	Rain	Fair	Fair
21			57	64	46	29.96	30.03	74	71	NE	NE	Fair	Fine	—
22			48	60	44	30.07	30.04	74	71	SE	E	—	—	Fine
23			51	61	52	29.97	29.86	76	74	ESE	E	Fine	—	Cloudy
24			54	64	56	29.70	29.63	85	89	ESE	SSE	Cloudy	Cloudy	Rain
25			61	65	62	29.62	29.70	91	85	SE	SW	Cloudy	—	Cloudy
26			62	65	60	29.76	29.84	90	90	SW	SW	Rain	Fair	Rain
27		.70	63	68	58	29.67	29.67	77	84	W	SW	Cloudy	—	Fair
28			65	69	55	30.06	30.09	83	85	SW	SW	Fair	—	—
29			58	69	65	30.04	29.84	88	84	SW	ESE	—	—	—
30			65	70	51	29.67	29.73	87	86	SSW	SW	—	Cloudy	—
Oct. 1			57	65	47	29.73	29.79	85	81	SW	WSW	—	Sm. Ra.	Fine
2			49	61	48	29.84	29.86	87	80	SW	WSW	Foggy	Fair	Cloudy
3			50	60	49	29.81	29.80	84	87	WSW	W	Fair	—	Fair
4			50	58	42	29.66	29.68	85	74	WSW	N	Foggy	—	Fine
5			44	54	39	29.67	29.82	78	71	W	NNW	—	Fine	—
6			41	53	41	29.96	30.07	76	68	NNW	W	—	—	Foggy
7			44	59	42	30.00	29.93	75	78	W	SSW	—	Fair	Fair
8		.38	58	62	48	29.83	29.70	86	86	SW	WSW	Cloudy	Rain	Rain
9			51	57	46	29.69	29.79	82	78	SW	WSW	—	Fair	Fine
10			50	67	58	29.63	29.72	89	89	SSW	W	Rain	Ra.	Cloudy
11		.26	61	67	59	29.92	30.00	89	84	WSW	WSW	Foggy	R. & Fair	—
12			61	65	59	29.89	29.96	92	81	WSW	SW	Rain	Fair	—
13			61	67	47	29.68	30.10	89	73	WSW	N	Fair	—	Fine
14			49	69	56	30.11	30.11	76	86	NE	E	—	—	—
15			60	63	56	29.82	29.83	86	86	SE	SSE	—	—	—
16		.15	58	65	45	29.54	29.66	90	76	S	WSW	—	Rain	—
17			46	60	50	29.89	29.86	81	79	SSW	E	Foggy	Fair	—
18			65	61	57	29.87	29.91	93	88	E	ENE	—	—	Cloudy
19			60	66	58	29.89	29.89	92	96	E	E	Cloudy	—	—

The quantity of Rain fallen in the month of September, was 2 inches and 99.100ths.

### NOTICES.

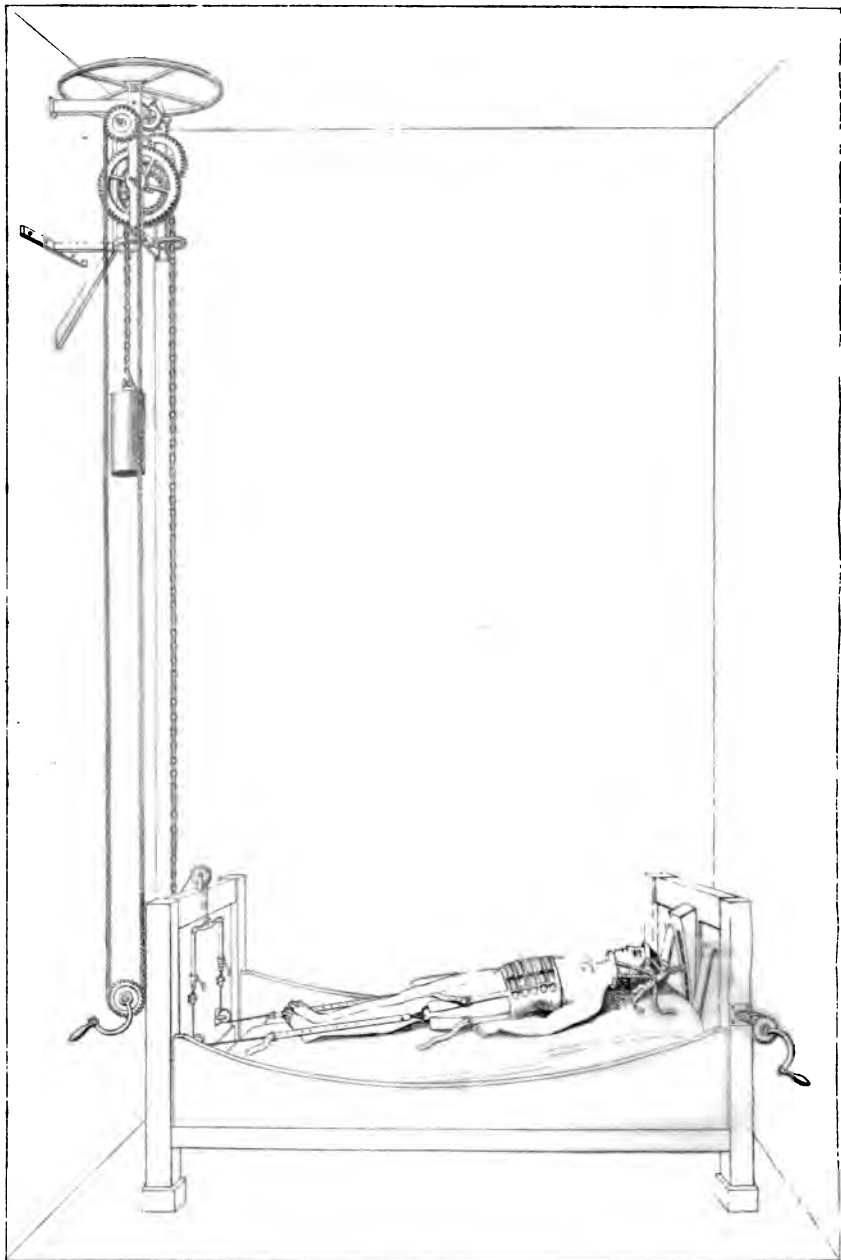
The continuation of Mr. Brodie's Paper on the Testicle will be given in our next.

Various other Papers, which have been unavoidably postponed, are also in the press.

We should be much obliged to the Author of the Paper entitled "Observations on the Interior Structure and Economy of the Conglobate Glands," if he would allow us to prefix his name.



New Series N° 6.



*M. Lafond's Apparatus for the Cure of Distortions of the Spine.*

*Engraved for the London Medical & Physical Journal Dec 1, 1826*

# THE LONDON Medical and Physical Journal.

Nº 334, VOL LVI.]

DECEMBER, 1826.

[Nº 6, *New Series*.]

For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.—RUSH.

## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

### DISTORTIONS OF THE SPINE.

*An Account of the Mode of treating Distortions adopted in Paris; with Remarks.* By JOHN SHAW, Surgeon to the MIDDLESEX HOSPITAL.

As the spine is composed of many parts, which differ essentially from each other both in structure and function, it is liable to a variety of diseases. On a former occasion\* I proved this to a certain extent, by the description of nearly an hundred morbid specimens from the private collection of Mr. BELL. But we need not refer to a museum of morbid anatomy for our proofs: any surgeon in extensive practice will admit that there is much variety in the diseases of the spine, and that the symptoms are so varied, so curious and complicated, that he can scarcely enumerate them. In the Middlesex hospital, at this moment, there are seven patients with affections of the spine, and there are not two in whom the symptoms are similar, or where the same mode of practice is applicable. But, notwithstanding the difficulty which the highest medical authorities have in determining on their nature, although a mistake might prove fatal to the patient, these complaints are frequently entrusted to empirics or to mere machinists.

Although men ignorant of anatomy and pathology, and proceeding merely on mechanical principles, are dangerous practitioners, yet, in one of the most common affections of the spine, little good can be done without the aid of mechanical

\* See the Appendix to my work on Distortions of the Spine, and the volume of Plates in illustration of the varieties.

means; I have therefore taken every opportunity of examining the various contrivances which have been proposed, either by medical men or by machinists, in expectation of receiving hints for improving and simplifying one of our most useful auxiliaries in the treatment of these diseases.

Having repeatedly heard of some extraordinary methods practised in the institutions lately established in France for the cure of distortions, I went to Paris last August, in the hope of being able to see them. Through the kindness of my friend M. BRÉSCHE, surgeon of the Hôtel Dieu, and professor in the Ecole de Médecine, I was introduced to the medical superintendents of several of these institutions. These gentlemen shewed me their method of treatment, and, fortunately for my object, the patients at each of the establishments cheerfully permitted me to examine them, and answered my questions with the greatest readiness. In this way I had the fullest opportunity of learning each plan of treatment.

There are many establishments in Paris for the cure of distorted spines: I visited three of the most celebrated. The principal one is in the Rue Varenne, in one wing of the splendid building formerly the Hôtel Biron; the rest of the house being occupied by *pensionnaires*, who are educated by the nuns of the order of Sacré Cœur, the institution is now called "the Convent of Sacré Cœur."\*

I also visited the institution superintended by Dr. MAISONABBE, the editor of a journal devoted to the discussion of questions connected with the subject of distortion. His institution is in the Rue Chevreuse, near the Luxemburg. I also saw many patients in the establishment superintended by MM. LAFOND and DUVAL, in the Rue de Batailles, at Chaillot, one of the most beautiful rising grounds near Paris.

As I had thus the advantage of seeing the different modes in which about seventy patients† were treated, I made no attempt to see the institution at Chaillot superintended by M. MILLI, although his was the first established in Paris, and is perhaps more talked of than any other. The history of its foundation is rather curious. M. Milli was a mer-

\* Dr. RECAMIER of the Hôtel Dieu, and Dr. COLLIN of la Charité, are the medical superintendents: the *traitement* is superintended by a governess, who had formerly the charge of some young ladies who were patients in M. MILLI's institution at Chaillot, which will be described presently.

† Some idea of the rank of the patients treated in one of the institutions I visited may be formed, from each of them paying 6000 francs a-year: there were thirty young ladies there.

chant:\* when twenty-three years of age, he consulted his family physician about a curve in his spine. The physician recommended him to M. D'YVERNOIS, then famed in Paris for curing club-feet; but the latter not choosing to undertake the treatment of a curved spine, advised him to go to M. HEINE, at Wurtzburg in Germany, there not being at that time (1820) any institution in Paris for such cases. M. Milli remained for some time at Wurtzburg, and, while there made drawings and models of the beds and other contrivances used in M. Heine's institution. On his return to Paris, he called on his friend the physician, and assured him that he had received great benefit from the plan pursued at Wurtzburg; but the physician declared, on examining him, that he saw little change in the state of his spine.† However, he complied with M. Milli's request, and certified that the beds, &c., of which M. Milli shewed him the models, might be useful in the treatment of curvatures of the spine. M. Milli received similar certificates from other medical men in Paris. He then published a Prospectus, in which he proclaimed that he was cured, and promised, by following a similar plan to that by which he had been relieved, to cure all diseases of the spine in an establishment he had formed at Paris, in the Quai de Billi, near the Champs Elysées.‡ This was so lately as the winter of 1823. The speculation succeeded so well, that there were several institutions immediately established on the same plan, and even some mistresses of boarding-schools, finding they were losing their pupils, got beds made similar to those used by the young merchant, and took the treatment of the crooked into their own hands. It is stated in one of the French Journals, that, of 140 young ladies in one school, twenty were found to require treatment.

\* See the Journal Clinique, par C. A. MAISONABBE; Professeur AGREGÉ en Exercice à la Faculté de Médecine de Paris; and La Vérité sur les Progres recens de l'Orthopedie, par un Docteur en Médecine de la Faculté de Paris.

† See the communication from this physician to M. Maisonabbe, in the first Number of the Journal Clinique.

‡ A son retour, M. Milli s'empressa de faire construire un lit semblable à ceux de Wurtzburg, et s'étant procuré l'attestation de quelques medecins et chirurgiens, recommandables qui crurent vraisablement, que les lits mécaniques pouvaient contribuer à corriger les courbures de la colonne vertebrale, il publia un prospectus anonyme dans lequel, il proclama hautement sa guerison, (quoi qu'il ait encore assure-t'on besoin de corset pour dissimuler l'inegalité des ses épaules,) et la promit, sans scrupule, aux infirmes qui voudraient se rendre dans un établissement qu'il venait de fonder à Paris, Quai de Billi, près les Champs Elysées. (Hiver de 1823.)—See p. 5 of "La Vérité sur les Progres recens de l'Orthopedie," par un Docteur en Médecine de la Faculté de Paris.

M. HEINE, of Wurtzburg, in a paper on the instruments used in the Treatment of Distortions, (in the Jena, Allge. Literat. Zeitung, for Dec. 1825,) complains bitterly of M. Milli's conduct, and declares his disbelief in the announcement of a pretended cure. M. Heine says that the apparatus which M. Milli brought from Wurtzburg, however perfect in itself, is not sufficient for the cure of a person twenty-three years of age; and that, to cure any curved spine, a long and complicated treatment is necessary, &c. &c. However, although this young merchant has many enemies and rivals, he has also powerful friends; for some of the members of the royal family have occasionally visited his institution, and given their *sovereign* opinion that the method he pursues is very judicious. He has also a strong ally in the Constitutionnel newspaper, which often contains paragraphs in favour of his establishment.

It may appear strange that patients labouring under a very serious and complicated disease, should be entrusted to the care of a man entirely ignorant of medical science, but so many were attracted by the novelty of the plan, that other persons were induced to found rival institutions, where the same mode of practice was followed. Indeed, as there were no similar institutions in Paris previously to M. Milli's return from Wurtzburg, this person, although not educated to the profession of medicine, but acting as a merchant, may be considered as the founder of the establishments which, within the last two years, have become so numerous in Paris and in the provinces of France. We may express surprise at the credulity of the French, but when we recollect the history and the temporary success of some adventurers who proposed to cure similar diseases in London, we have no right to call ourselves a more "thinking people" than our neighbours.\*

As M. Milli avows that he has copied from M. Heine, we should, without going further into the history, be led to suppose that M. Heine was the original inventor of the mechanical beds, &c.; but we shall find that Heine's method is nearly a copy of that used by VENEL, who practised about

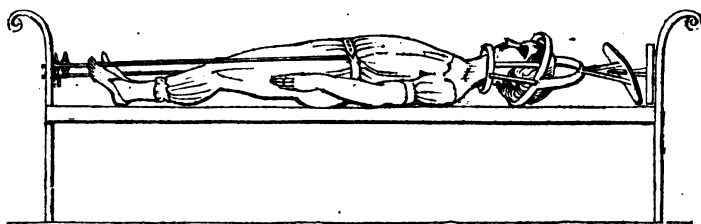
\* The frequent announcements in the French papers, and even the "Rapports" of the Faculty of Medicine, give some idea of the variety of inventions in Paris at this moment for the cure of distortions. Any one who is curious to see one of the last improvements, may perhaps have an opportunity by calling at an upholsterer's in Mount-street, where there is "un lit mécanique." It was invented by a locksmith in Paris, and, after being presented to the Academy as being superior to all prior inventions, was sent over here; the maker expecting to receive a large sum for the right of using it.



fifty years ago at Orbe in Switzerland, and which is described in the Memoirs of the Physical Society of Lausanne. It is there stated that Venel used, during the day, a machine nearly similar to Levacher's, or to that known in this country by the name of Jones's collar; but that his grand improvement on Levacher's system was a contrivance for fixing the patients in a state of extension during the night. The Vth plate in the 2nd vol. of the Memoirs represents the bed employed by Venel, and, if compared with that now generally used in Paris, and which is called the Wurtzburg bed, the difference between the two will be found so trifling, that we shall be inclined to agree with those who allege that Heine, who complains of Milli, is himself a mere copier of Venel.

Before making any remarks on the principle of the practice followed in the several institutions, I shall endeavour to describe the methods by which I saw it put into effect.

In the convent at Sacré Cœur, the beds are formed after the model of those used by Milli, or after that of Heine of Wurtzburg. The sketch is on so small a scale,



that it is difficult to represent accurately the form of the springs. In the last improvements by Martin, the machinist of the Institution, there is a scale introduced upon which the elliptic springs act: he has also added a windlass, or wheel, at the lower end of the bed, to act on the springs. The springs are very powerful, and, by communicating with the casque on the head and the girdle round the pelvis, keep the body on the stretch. The bed or mattress is stuffed very hard, and is so convex that the spine, or only the middle of the back, is supported: indeed, it is of such a shape that it would be impossible to remain on it if the body were not fixed. Several springs (not represented in the plan) are attached to the sides of the bed: some project in a direction nearly horizontal above the mattress, so that the sides of the

patient, instead of resting on the bed, are supported by several points. The object is to push in the projecting parts: while other springs pass over the body, and press upon the ribs in front. The patient spends the night, and the greater part of the day, on this bed; a constant pull being kept on the head and the hips by the elliptic springs, while pressure is made on the protuberances by the horizontal *plaques*. When she rises from bed, she is put into a strong arm-chair, furnished with a *minerve* and powerful springs, which may be brought forward by screws. Placed in the chair, she is first firmly strapped down, by a girdle round the hips, to the seat; her head is then elevated, and fixed to the minerve; then the springs are worked forward by screws to press on the ribs: she has thus no power to move her body in any direction. When freed from the chair, she either puts on a strong corset or cuirass, also furnished with strong-pressure springs; or she mounts on long crutches, which prevent her touching the ground except with the tips of her toes. It is only on such crutches that she is allowed to stand or move about. When sitting at her meals, she is supported by crutches attached to the chair. I cannot state the exact time spent in each of the machines: I saw all of them used, with the exception of the corset, and was told that there was not an hour, night or day, during which the patient was not engaged in one or other of the plans of treatment.\*

That this description is not exaggerated, will appear by the following extract, from the *Journal Complémentaire des Sciences Medicales* for May 1824, -of a description by Professor FODERÉ of the method pursued in an institution lately established by M. HUMBERT:

"Each patient was put into a separate bed. The placing them occupied us from nine until one in the morning: (there were twenty patients.) The beds had pulleys at the sides, and levers at both ends. Each patient, covered with a flannel gown, which opened behind, was laid on a hair-quilt, four inches thick, and without cushions or bolster. A large leathern belt, with rings for attaching the several cords, was put round the hips; and upon the head a cap, laced on the upper part, and fastened under the chin. This cap was attached to a long lever at the top of the bed. The patient

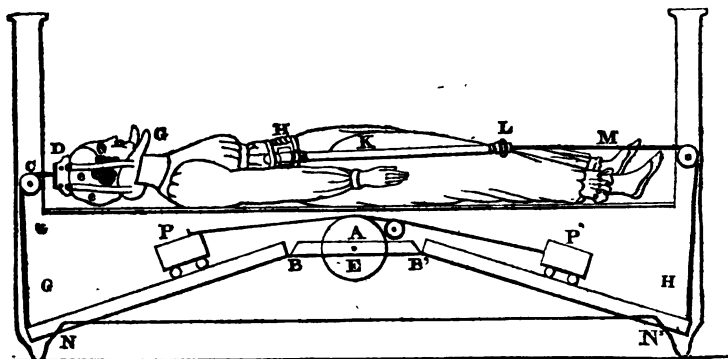
\* All the machinery is beautifully executed and finely polished. The maker is Martin, who, like our machinists in London, also undertakes to cure diseases of the spine. As long as complicated machinery is recommended for the cure of distortions, such persons will generally become the advisers, instead of continuing to be merely the manufacturers of the instruments ordered.

being now laid at full length, the operator exposed the protuberance (*bosse*), worked it and kneaded it (*la masse et la petrit*), while he pushed it from the opposite side. He then insinuated a wedge of wood, prepared according to the form of the tumor, between it and the mattress, so as to push the swelling inward. If the curve was the shape of an S, this operation was done on both sides. On the side opposite the tumor, which is generally thin and wasted, dry friction, and even slight "*flagellations*," were used to excite the contractility of the muscles. After these processes were completed, the body was, by cords passing from the girdle round the hips, fixed to the sides and ends of the bed, so as forcibly to pull down the trunk and pelvis from the head, which continued attached by the cap to the lever at the top of the bed. "*Cela fait, on souhaite la bon soir a la patiente, et l'on passe à une autre.*"

"At four in the morning, a new order of operations commenced. Each patient in rotation was placed in a vapour bath, where she remained an hour; after which her *bosse* was exposed to a water vapour douche (*de vapeur aqueuse*) for half an hour, it being *massé et petrit* at the same time, and the opposite side slightly *flagellé*. She was then taken to her chamber, and placed in a mechanical arm-chair, made on purpose for herself; a desk was added to it, to support her breakfast and writing or drawing apparatus, as she was to remain there four or five hours, without moving any part, except her limbs; the chair being so contrived that the wedge called *debossoir*, and the continued extension of the neck and trunk, could be employed as in bed. The patient thus did not enjoy more than seven or eight hours of liberty: if, indeed, that can be called liberty where she was not allowed to quit her long crutches."

The Professor continues:—"I confess that, in the three or four first instances, I was quite overpowered at this species of torture, but I was soon able to bear the sight unmoved; for, during all these operations, the patients did not even change colour, and each, in reply to the questions I put, *avec l'air de m'appitoyer sur elle*, said, smilingly, she did not suffer; that she slept very well, although tied up; and was so accustomed to the wedge, that she felt a want when it was not applied. I also examined the pulse and respiration, but there was no change in them: '*tant est puissant chez les femmes le désir de paraître belles.*'"

The diagram in the next page gives a general idea of the mechanism of the bed used by M. Maisonnabe. The extension of



the spine is produced by an ingenious, although rather complicated apparatus, but by it M. Maisonabbe says he can regulate the degree of power more easily than by the springs used in the beds at Chaillot, and at the convent of Sacré Cour. As the manner in which the patient is laid and fixed is sufficiently explained by the drawing, I shall describe only the diagram of the machinery. In the bed the machinery is all concealed by a board; there is only a hole communicating with the axle of the wheel E, and a scale with a pointer, seen on the outside of this board. A, is a piece of wood passing from one side of the bed to the other; BN, BN, are two boards, twenty-eight inches long and four broad, attached to it by hinges; their moveable ends are fastened to the cords coming from D and H. P, P, are weights, of twenty-five or thirty pounds, mounted on wheels, and running in grooves on BN: these weights are attached by cords to the wheel E, which may be turned by a key. As the weights are raised or depressed on B, N, the power of these levers is increased or diminished. The cord attached to the collar round the neck is graduated. When the patient is to be submitted to the extension, she is first fixed by the collar G round the neck, and by the circle H round the hips, to the cords passing through the upper and lower ends of the bed. The operator then stands behind the upper end of the bed, and, taking hold of the patient's head, extends the vertebræ as much as he thinks proper, by pressing with his foot on the lever at N; then, by turning the wheel, arranges the position of the weights, and, noting their effect on the graduated cord, contrives that the continued extension shall be less by one-half than that produced by pulling with the hand and pressing with the foot.

As far as regards the mode of effecting extension, this is better than by springs, since more elasticity and play are permitted. M. Maisonabbe does not apply pressure, but trusts to the effects of the extension of the spine. His patients also use the long crutches in walking, and the crutches attached to the chair while sitting at table.

In the first Plate, which represents the bed and apparatus used by MM. Lafond and Duval at Chaillot, the machinery appears very complicated. This is from the inventor conceiving that a permanent extension ought not to be made on the spine, but that there should be what he calls an oscillatory movement of the different parts of the column; that they should pass alternately from a state of rest to a state of extension. The patient being fixed in the manner represented in the plate, is first wound up to a certain degree of tension by a ratch wheel, to which the cord seen passing over the pulley at the foot of the bed is attached: when thus stretched, an eccentric wheel (over which the extending cord passes,) is put into motion, so that the extension is increased, and then returns to its former degree. The effect of this apparatus in producing an oscillatory motion, may be understood by the following diagrams:

Fig. 1.

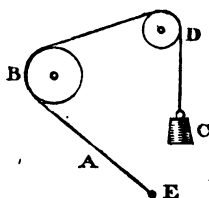
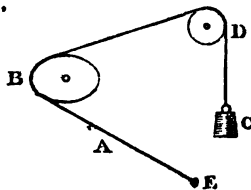


Fig. 2.



Let A, fig. 1, be a cord fixed at E, passing over a circular wheel B, and over the pulley D, and supporting the weight C. When the wheel B revolves, the position of C continues the same; but if B, as in fig. 2, be made of the form of an eccentric wheel, when B is turned, C will rise or fall according as the long or short diameter of B is uppermost.

The eccentric wheel was intended to be kept in constant motion by the mechanism at the end of the bed, but this machinery was not in use when I visited the institution.\*

\* So great is the desire at present in Paris to do every thing by machinery, that a proposal was seriously made to erect a steam-engine for the purpose of making the extending forces more equable.

The oscillatory motion was produced by the patient turning a winch connected with a ratch-wheel, which communicated with the eccentric wheel by a chain. The turning of the wheel by the patient herself was supposed to be advantageous, as the right or left arm might be used according to whichever side was defective: but to this alleged advantage I could not assent, as the shoulder-joint only was exercised in doing this.

The inventors allowed me to be fixed in the position represented in the plate, to try the effect of the oscillatory movement. Before I could be made sensible of the tension being increased by the eccentric wheel, I had to request that the small windlass, by which the body is extended in the first instance, should be wound up to its utmost pitch. It appeared to me that, unless the body is at first very forcibly extended, the effect of the eccentric wheel must be slight. Indeed, since the hips rest on the bed, there is scarcely any relaxation, and hence the apparatus is little more than the means of increasing a force already considerable. I shall presently show how an alternation of relaxation and tension might be more easily effected.

The long crutches used in walking, and the chair-crutch, were likewise employed in this institution; and there were hot and vapour baths. I observed one of the beds used by Milli, (the Wurtzburg bed :) a patient was placed in it for the purpose of becoming accustomed to the continued extension, previous to the use of the oscillatory motion.

From the preceding descriptions it appears that the principle in making extension is the same in all the institutions, the head and pelvis being the parts to which the bands are fastened. When the spine is extended in this way, the cervical portion is chiefly operated upon; for, although the force affects the whole spine, it strains that part the most where the extending power is not impeded by friction. The weight of the shoulders, chest, and abdomen, resting on the mattress, cause a great deal of friction; while the neck, not rubbing on the bed, offers no impediment of this kind. It is also to be recollected that the cervical vertebræ are less encumbered by connexions with the adjoining parts than the dorsal or lumbar.

The objections to this mode of extending the spine will appear stronger on reflecting that it rarely happens that the cervical vertebræ require extension; while, in almost every case, an extending power, much stronger than can be borne by the cervical vertebræ, should be applied to the lumbar part.

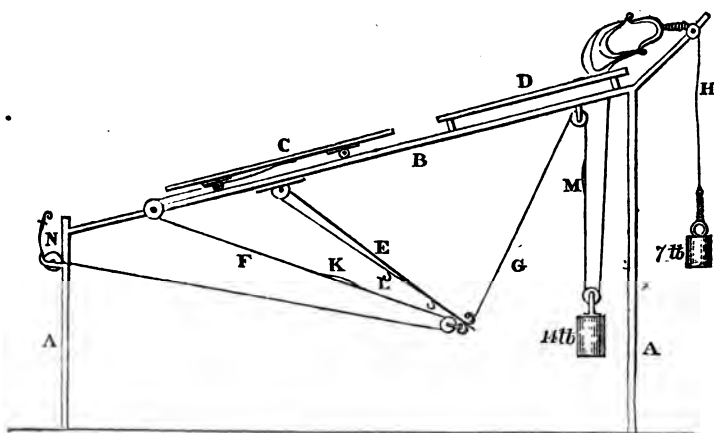
It may be further observed, that, by the manner the force is applied, there is even more friction to be overcome than that produced by the weight of the body alone,—viz. that of the hips and legs; and still the increased force necessary to do this also operates on the neck. We are therefore justified in concluding that, from the impediments caused by friction having been overlooked, the machinery stretches a part of the spine which scarcely requires it, while it operates to a comparatively trifling extent on that portion which may be most benefited by extension;\* and that the force necessary to overcome the friction is so great as to be almost unmanageable.

As the head is not fixed in M. Maisonabbe's bed in the same manner as in those of the convent, the force operating on the neck may not appear so great as that on the loins; but the same objections apply to this mode, because the two extending powers are equal, and the head and the hips are still the points on which the pull is made. However, although it may seem scarcely possible for a patient to bear the pressure of the collar when the cords, (as in M. Lafond's apparatus,) are wound up tight, still the effect on the neck is not so great as might be expected: at least I thought so when lying on the bed at Chaillot; for, when the cords fastened to the girdle round the hips were pulled so tight as to vibrate like harp-strings, the effect on the neck was comparatively trifling, so much was the extending power spent in overcoming the resistance caused by the friction of the shoulders, hips, and legs on the bed. Still this does not obviate the objections to the attempt to stretch the spine by making the head and pelvis the parts immediately acted on.†

\* This I have proved by experiment on myself, both on the bed used at Chaillot and on one similar to that employed in the convent of Sacré Cœur. A physician in town, who likewise submitted to the experiment, was convinced that, although the effect on the neck was painfully strong, there was scarcely any sensible tension of the lumbar part.

† Since writing the above, I have had an opportunity of seeing the apparatus used by a young lady, who, for the last eight years, has been trying a variety of plans for the cure of a curvature in her spine. She submitted for the prescribed time to wear a machine similar to that represented in the 7th Plate of my work on Distortions, as an improvement on Cheshier's collar; after that, she suffered for some years from the contrivance invented by a machinist in Great Queen-street,—a sketch of which is also given in the same plate; she then had the perseverance to go more than four miles every day, except Sundays, for many months, for the purpose of climbing up ropes and performing similar feats during several hours: but, being disappointed in the result of all these plans, she went to France, and has brought back an apparatus like that used at the convent of Sacré Cœur, determined to give it an eighteen-months' trial. The physician who took me to see the apparatus tried the effect of the extension by the collar on himself: he can best tell what he felt; my sensations were so alarming that, before I was stretched for a minute, I entreated to be released. I can now understand the feelings which cause such distress to patients who complain of fulness in the head; and knowing that the col-

As it is perhaps now obvious that the springs used at the convent of Sacré Cœur, the ratch-wheel at Chaillot, and the weights and levers of M. Maisonabbe, are not adjusted so as to operate on the different parts of the column, I will not enter into a more minute detail of the manner in which these forces act. Perhaps my objections to the various modes of extending the spine, will be more easily understood by comparing the French beds with a moveable plane, which I have been in the habit of recommending. The apparatus is nearly the same as one I contrived about eight years ago, but the drawing given in the folio edition of the Plates represents it as too complicated. At the time the drawing was made, I imagined that the additions were improvements, but I have been since induced to restore the machine to its original simplicity; and therefore, although it is the same in principle, it may appear to be a different instrument from that represented in the plate formerly published.



If this contrivance were merely for the purpose of extending the several parts of the spine, it would have been represented in a much simpler form; but, as it can also be adapted for a variety of exercises, all the cords and pulleys necessary for performing them, have been introduced into the diagram.

As I am sometimes fixed by a padlock during the night, I can believe that the worst effects may ensue from this practice. The cause of my feeling the pressure on the neck more on this occasion than at Chaillot, was probably from the head-spring being differently arranged. This might be altered; but, if it be true that the springs are in some instances so managed that the eyes become suffused with blood, we can form some estimate of the danger to the delicate vessels of the brain.



The frame-work is six feet long and twenty inches broad, and is like a small bed with one end higher than the other; the middle space is filled up with thin deal instead of canvass, and there are ledges on the sides to confine the moveable frame. C is thirty-two inches long, stuffed and covered with rough green baize, and mounted on six rollers. D is eighteen inches long, stuffed and covered, and may be fixed temporarily by pins into holes in the large frame. E is a strong door-spring, such as may be got in any ironmonger's shop.

If D were taken off, the apparatus, as represented by the diagram, would be ready for the performance of the various exercises; but I shall suppose that a patient is to be put on it for the purpose of an extension being kept up on the several parts of the spine. D being on, C is brought up close to D, and fixed there by slipping a ring on a brass stud in D. The loop K is to be put on the hook L, and the fourteen-pound weight is to be hooked on the loop M. The patient now lies down on D and C: she should have on a dressing gown made of the nappy cloth called Bath coating, as this, to a certain degree, prevents her slipping when the extending force is applied, but it is not sufficient; therefore a broad belt, fastened by straps to D, is buckled round the waist, and another fixed to C is put round the hips. The ring by which C is held close to D is now to be thrown off; C is then pulled down by the spring lever and weight, and draws the hips from the chest, so as to extend the lumbar part of the spine. It must now be obvious that, as the body is carried down on rollers, the extending power will not be impeded by friction, as in the French apparatus. The forces operating are—first, the weight of the body on the inclined plane; second, the power of E as a spring; thirdly, the fourteen pound as a weight; but greater than all is E as a lever, increased in power by the cord being fixed to L, and the fourteen pound to its extremity. It is unnecessary to describe the effect of this arrangement of the lever and weight; it will be sufficient to state that in this way we may have a force equal to sixty pounds; and which, as it separates C from D, necessarily operates on the lumbar part of the spine. This is certainly a great force, and, although it may be reduced in a moment to one of ten pounds, it ought to be used with caution: it is, however, the power with which I have been for some time operating on the lumbar part of the spine of several private patients, and of a girl in Handel's Ward. As the latter patient is seen almost every day by my colleagues and the pupils of the hospital, any bad effects, or even inconveniences, resulting from the force applied would have been immediately observed. It

may be said that an apparatus of such power is more dangerous than the beds used by the Germans or French; but there is no useful surgical instrument, nor medicine, which may not be dangerous if put into the hands of one unacquainted with the principles of our science.\*

This power, acting on the lumbar part of the spine, does not in the slightest degree affect the cervical vertebræ. When it is necessary to operate on the upper portion of the spine, a new power is employed, and one so simple that it may be regulated with the greatest nicety. A broad soft band is put under the occiput, another under the chin or over the forehead, according to the shape of the patient's head: these are hooked on a *spur*, to which a cord, H, with a weight, is attached. The head, after being drawn up by the operator's hands, so as to extend the cervical part of the spine, is laid on a small pillow on D: a weight of ten pounds will keep the head in its proper position. By following the same principle, we can operate, with different degrees of power, on any portion of the spine.

We may now attend to the apparatus, as the means of performing exercises which tend to increase the power of the several classes of muscles.

By merely lifting off D, taking K from the hook L, and the fourteen pound from M, leaving it attached to its pulley, we have the apparatus as represented in the diagram, and so arranged as to permit of the performance of a great variety of exercises: I shall only mention a few by way of example.—The patient may lie on C, and pull herself up to the top of the plane, by taking hold of pegs which project from the sides of the frame. The spring and weight will pull her down; or she may imitate rowing, by sitting on C, and drawing herself up by a cross stick attached to cords in the upper part of the frame. By standing opposite to the bottom of the plane, she may, by hooking the cross stick to N, imitate the motions of a sawyer; or, by putting a band over her head, bring the long muscles of the spine more immediately into action. The resisting force in all these exercises is the combination of the spring and weight, which may be varied in power according to circumstances. Although the double pulleys diminish the force by one-half, they have been added for the purpose of admitting a greater latitude of motion.

The whole apparatus is so simple in its construction, that it requires no further description. As far as it is the means of

\* Of seven patients at present in the hospital with affections of the spine, there is only one for whom this practice is applicable; it would be highly dangerous in the other cases.

extending the spine, it is not liable to the same objections as the French beds. There is no friction; the extending power may be modified, or applied to any particular part of the spine; the cervical may be extended in a slight degree, while a strong force is operating on the lumbar and lower dorsal vertebrae. There are also other advantages: the patient may immediately stop either force or the whole, and be as completely at rest as on a common inclined plane; or she may, by taking hold of pegs at the top of the plane, relieve herself by alternating the stretching power with exercise; and, as the power is always acting, were it desirable, the oscillatory motion might, by the introduction of two wheels, be made more complete than that produced by the complicated machinery of M. Lafond.

But, independently of its being an apparatus for extending the different parts of the spine, it admits of the patient taking such a variety of powerful or gentle exercises as to obviate the necessity of any other contrivance for bringing the muscles into that state of excitement which is so important in the treatment of distortions.

Since it is acknowledged that little good can be done in many cases of surgery without the aid of mechanism, and that much harm ensues from its misapplication, it is to be hoped that the subject of this paper, although almost purely mechanical, will not be considered unworthy of attention. It is surely important to inquire into the fitness of new contrivances for the treatment of a disease, which, in many of its stages, may be greatly benefited or aggravated by machinery; and especially at present, as the system now pursued on the continent will probably soon be introduced into England.\*

Many questions regarding the principles on which the German system of practice has been adopted in France, remain for discussion. The mechanism of the beds as a means of extension has been first examined, as it is the part of the system to which the French seem to attach the greatest importance. We have still to inquire into the propriety of the use of pressure, into the advantages of the long crutches, and into the cause of the apparent neglect of all those gymnastic exercises which were at one time so much in vogue in Paris.† But the consideration of these and other questions connected with this subject, must be deferred until another opportunity.

\* Several young English ladies were in the institutions in Paris when I visited them; and, since my return, I have heard of fifteen who have gone there to submit to the treatment, and of several who have returned.

† The climbing ropes, &c. for the cure of distortions, although imported from Paris to London, is now entirely given up there: it has, like every other system

## UNION OF BONES.

*Remarks upon the Want of Bony Union in Cases of Fracture of the Neck of the Thigh-bone within the Capsular Membrane.* By HERBERT MAYO, Esq. &c. &c.

THE body of evidence, adduced in Sir ASTLEY COOPER'S valuable work upon Injuries of Joints, sufficiently proves that fractures of the neck of the thigh-bone within the capsular membrane are not followed by bony union: I shall quote a single case in illustration of the general fact.

A woman, about fifty years of age, fell with great violence upon her left hip. The limb was not sensibly shortened, but was rendered useless: pain and swelling followed. She was confined to her bed for the ensuing five months: she then appeared to regain some degree of strength in the injured hip, and gradually became enabled to walk with the assistance of a stick. About thirteen months after the accident, she died suddenly of apoplexy. On examination, the case was found to have been a fracture of the neck of the thigh-bone within the capsular membrane. Union had taken place by means of an intervening layer of soft but tough substance, from two to four lines in thickness; in which, however, nothing like commencing ossification was detected.\*

In the preceding case, the long confinement to the recumbent posture would have produced union by bone, had the fracture occurred without the limits of the capsular membrane. What then, we naturally inquire, are the circumstances attending this kind of injury, which essentially modify the usual consequences of fracture, and prevent the bone being knit by the common method?

The points, in which a fracture of the neck of the thigh-bone within the capsular membrane differs from another fracture, appear to consist—

1. In the difficulty of preventing motion between the broken surfaces.
2. In the imperfect supply of blood which the head of the

where the means proposed are confined to a single plan of treatment, been unsuccessful. Dr. COLLIN informed me that he had examined ten patients, who had for a long time persevered in performing various exercises, and that they had been scarcely benefited by them. However, there is no doubt that exercises, taken as an *auxiliary* to other plans of practice, are most useful. As to their capability of curing a confirmed curvature of the spine, I am every day convinced that the views I have offered on this question, in the Supplement to my work on Distortion, are correct.

\* The specimen is in the museum in Great Windmill-street. It was given to me by my friend Mr. Sweatman, who witnessed the whole of the case, and from whom I learnt the details, which I communicated to Sir Astley Cooper.

bone must receive when nourished through the vessels of the ligamentum teres only.

3. In the complete isolation of the fracture, by means of the synovial and capsular membranes; so that the adjacent textures, which are in immediate contact with any other broken bone, can contribute nothing to the reparation of this.

The remarkable case which I have mentioned tends to show that the two first of these peculiarities are insufficient to account for the anomaly under consideration. The ordinary effect of moving a fractured bone is to prevent *every kind of direct union*; yet in this instance union by soft substance had taken place. Soft union, again, having occurred, if it were reasonable to suppose that the insufficient supply of blood to the head of the bone would check the progress of ossification on one side, on the other, at least, we should have expected to find a growth of bony substance. Nothing of this kind, however, existed: on the contrary, the neck of the bone was distinctly shortened.

It remains for us to examine the agency of the adjacent textures in repairing divided parts.

In an earlier Number of the London Medical and Physical Journal, an excellent abstract is given of M. DUPUYTREN'S Observations on the Reunion of Bone, of the exactness of which I entertain no doubt, as they have been confirmed by some important researches of Mr. BRODIE'S, and correspond accurately with some experiments and dissections of my own.

In simple fracture, the appearances noticed during the first sixty hours are limited to the immediate effects of the injury. An inconsiderable quantity of blood is found effused into the exposed cancelli, and into the neighbouring cellular texture; and the periosteum is seen to be stripped irregularly from the margin of the broken surfaces.

About the fourth day, all the parts surrounding the fracture become thickened and hardened; the cellular substance, the muscular and tendinous fibre, become condensed, so as to form a tough capsule, which contains, and holds in some degree of apposition, the extremities of the broken bone.

The ends of the bone become united by soft substance, which consists in part of the organised clot, if there be any, —in part of lymph effused around the ends of the bone,—in part of a growth from the surface of the investing capsule.

The capsule becomes cartilaginous, and at length ossifies; the muscular and tendinous fibres, which were at first included in it, becoming at the same time distinct and disengaged upon its surface. This change takes place between the third and sixth week.

As yet there is no bony union between the fractured surfaces. The soft substance, by which they are connected, ossifies subsequently, and, as it would appear, through an extension of that process from the bony capsule. The ossification of the intermediate substance takes place between the sixth week and the fifth or sixth month.

In proportion as the intermediate substance becomes ossified, the capsule, or thickening round the united bone, is gradually absorbed.

Thus it appears that certain parts, which are excluded by the synovial membrane from contact with a fractured neck of the thigh-bone, are important agents in repairing other fractures.

The texture adjacent to a ruptured or divided tendon, or to a divided nerve, is no less instrumental in the union of these parts.

Upon examining, at different periods, the gradual process of restoration which ensues after the division of the tendo Achillis in dogs, the following appearances present themselves. In forty-eight hours, the subcutaneous texture, which contains the divided tendon, is found loaded with coagulable lymph and extravasated blood. On making a longitudinal section of the part, the ends of the tendon are found about an inch asunder, but connected together by clotted blood and swollen cellular membrane. The coagulated blood is in greatest quantity internally, and coheres with the cut surfaces of the tendon. The swollen cellular substance is continuous with the membranous sheath of the tendon above and below the wound.

At the expiration of seven days, the uniting medium remains of greater thickness than the divided tendon, but is readily separable from the skin and from the subjacent muscles. When cut through longitudinally, it appears of a reddish colour, dense, firm, and to a certain degree elastic. It coheres in some parts firmly, in others slightly, with the cut ends of the tendon; but is strongly and inseparably connected with the cellular sheath of the tendon, which is thickened and discoloured for some distance;—so that the sections of the tendon admit, without much force, of being displaced and turned out of their sockets in the uniting membrane, which is left coherent with, as it is obviously produced from, the membranous sheath of the tendon.

After seventeen days, the connecting substance is found to be reduced in thickness: it is firmer and paler than before, and coheres inseparably with either cut surface of the tendon, the glistening fibrous character of which it subsequently assumes.

The appearance of a nerve in process of union, seven days after its division, closely resembles that of a divided tendon.

If a portion, a line in extent, be removed from the infra-orbital nerve of a cat upon the cheek, the wound heals readily; and the sensation of the upper lip, which is temporarily destroyed by the experiment, returns towards the end of the third week. At this period the cut ends of the nervous fibrils appear to be contained in, and united by, a thick mass of tough, grey, semi-transparent substance. On making a longitudinal section of this substance, the ends of the nervous fibrils, which enter it, appear firmly coherent with it, and about one or two lines apart. Here and there a fibril seems to extend further into the connecting medium, but no continuity of nervous substance is as yet re-established between the divided portions.

The portio dura of the seventh nerve, when divided upon the cheek, unites in a similar manner; but it is nearly a month before the appearance of a slow and imperfect action of the orbicularis palpebrarum, upon touching the surface of the eye, shows that the nerve is again becoming capable of transmitting the influence of the will.

The last examples which have been given seem to show, that the adjacent cellular texture is an important agent in repairing divided parts, and, in connexion with what has preceded, make it far from improbable that the exclusion of this substance from contact with the broken neck of the femur is the essential cause of its imperfect restoration. It may serve to confirm this supposition, that, in the remarkable specimen which has been already referred to, *some degree of ossification had taken place externally to the capsular membrane*, which, however, necessarily could not extend to the seat of the fracture: but, on the evidence hitherto brought forward, we can found no more than a plausible conjecture. For inductive proof, it would be requisite to produce a case of deficient union, attended with perfect apposition and absolute rest of the divided parts, with no interruption of the customary supply of blood, and in which the only assignable difference from cases of ready union should consist in the isolation of the divided part from any sort of contact with the cellular texture.

Such a case is not readily met with; but the following instance comes near to include all the conditions required.

A small perforation was made in the cranium of a young cat, immediately before the ear: a thin, but blunted wire, bent at the extremity, was introduced at this aperture, and carried upon the petrous portion of the temporal bone to the side of the

pons varolii, so as to divide somewhat more than the anterior half of the fifth nerve in the cranial cavity. The parts supplied by the first and second division of the fifth nerve immediately lost their feeling; and the cornea, in twenty-four hours, became slightly opaque. The iris, nevertheless, moved as readily as before the experiment, and the animal evidently retained the vision of the eye, which had lost the sense of touch.

This animal was killed *eighteen months* after the imperfect division of the nerve, during which no additional change had ensued, no increase or diminution of the opacity of the cornea, or return of common feeling.

On opening the cranium, the cut ends of the fibrils of the fifth nerve were found to be not above a line asunder: they were held in this near apposition by the part of the nerve which had not been injured; and they were actually coherent by means of a thin film, which seemed to be a clot of blood that had lost its colouring matter. The cohesion, however, was so slight as to give way to very moderate pressure, and had no resemblance to the firm union described in the preceding instances.

May we not reasonably compare the isolation of a nerve in the arachnoid cavity with the isolation of the neck of the femur in a synovial cavity; and consider the want of efficient union in the instance just detailed, as illustrative and explanatory of that which characterises the important surgical case that has been the theme of so much discussion?

19, George-street, Hanover-square; November 7th, 1826.

#### DETECTION OF POISONS.

*Practical Observations on the Application of the Liquid Tests for the Detection of Arsenic and Corrosive Sublimate, when administered as Poisons; and on the Preparations of the Contents of the Stomach, so as to ensure the characteristic Effects of the decomposing Agents.* By ROBERT VENABLES, M.B. &C. &c.\*

IN the application of a liquid test, with the view of identifying any agent in solution, two objects are essentially necessary to insure accuracy of research:—1. A precipitate must be formed, consisting (in part, at least,) of the substance, the presence of which we wish to identify. 2. We should always select such agents as will produce a coloured precipitate, and, if possible, one peculiarly distinctive of the substance

\* We regret that press of matter has obliged us to postpone Dr. VENABLES' valuable paper longer than we could have wished.—EDITOR.



sought for. Hence it is that the soluble salts of silver and of copper, as forming (under particular management) coloured precipitates with arsenic, have been regarded as the agents most suited to the discovery of this mineral in solution. The precipitate formed by the combination of arsenic with the oxide of silver, is of a yellow colour; while the arsenite of copper is of a beautiful green.

When we have a suspected solution, we cannot at once pronounce on the absence of arsenic, if no precipitate occur on the simple addition of nitrate of silver, because the nitric acid exerts a stronger affinity for the oxide of silver than the arsenious acid. Hence we are recommended to add a small proportion of alkali, or alkaline carbonate, to the suspected solution, by which means we form an alkaline arsenite; in which case, on the addition of the nitrate of silver, a double decomposition takes place, and the characteristic precipitate is thrown down.

Several objections, however, have been urged against this test; and perhaps the most formidable, though the least insisted on, is that the nitrate of silver is decomposed both by the fixed alkalies and by their soluble salts, and the precipitates on these occasions are such as may readily deceive a careless observer, or one not habituated to the practical part of chemistry. Indeed, when nitrate of silver is decomposed by caustic or carbonated potash, the first addition produces a yellow bluish, which very much resembles that of the arsenite of silver; and a hasty or inexperienced operator might, without waiting to examine the subsequent appearance, be induced to pronounce the presence of arsenic from the above appearance, however transitory.

Another objection is, that nitrate of silver produces, with the alkaline phosphates, precipitates which, in their sensible characters, so completely resemble the arsenites of silver as not to be distinguishable. It may be still further objected, that the alkaline muriates,—as common salt, for instance, and which is so likely to constitute a portion of the contents of the stomach,—throws down a copious white precipitate with nitrate of silver, which will tend to embarrass the operator, and certainly to obscure the results.

Various plans of obviating these objections have been proposed. Perhaps the most simple plan would be to apply the nitrate of silver to the suspected solution, previously to adding the alkali. If no precipitation take place, we naturally conclude that the fluid does not hold in solution either alkaline phosphates or muriates. Then we may add a drop of caustic or carbonated alkali in solution; when, if arsenic be

present, the characteristic yellow-coloured precipitate will immediately fall down. If, on the addition of the nitrate of silver, a copious, dense, white precipitate fall down, we may conclude this to be muriate of silver; and we should therefore cautiously add the nitrate of silver, till precipitation ceases. Then, by filtration, we remove the muriate of silver, and afterwards proceed as before. The objection, however, which was urged in the beginning,—namely, that the first precipitation from adding an alkali to nitrate of silver may deceive, or at all events render an inexperienced or unpractised operator uncertain as to the results, will still apply. In order to obviate these inconveniences, I would recommend the operator to test the suspected solution, in the first instance, for the two salts—muriate and phosphate of soda, which are most likely to embarrass his future proceeding. This may be effected in the following manner:—A drop or two of the suspected fluid may be placed on a card or white plate, and several of these may be so prepared. To one we may add nitrate of silver, which will discover the alkaline muriates, if they be present; and the sulphate or nitrate of iron, or the nitrate of lead, will discover the phosphate of soda.\*

If, on the addition of these reagents, we discover either of the above salts in the solution, we should proceed to remove them by the cautious addition of their respective precipitants, and the subsequent filtration of the liquor. In this manner we may free the suspected fluid from all embarrassment, and every doubt and uncertainty arising from the above sources.

Less operose methods have been proposed for obviating these sources of fallacy in the application of the nitrate of silver. Dr. PARIS proposes the following:—"Drop (he says) the suspected fluid on a piece of white paper, making with it a broad line: along this line a stick of lunar caustic is to be slowly drawn several times successively, when a streak is produced, of a colour resembling that known by the name of Indian yellow; and this is equally produced by the presence of arsenic and that of an alkaline phosphate: but the one from the former is rough, curdy, and flocculent, as if effected by a crayon; that from the latter is homogeneous and uniform, resembling a water-colour laid smoothly on with a brush. But a more important and distinctive peculiarity soon succeeds; for in less than two minutes the phosphoric yellow fades into a sad green, and becomes gradually darker,

\* The soluble salts of iron are preferable to those of lead for the detection of phosphate of soda, because the phosphate of iron is of a blue colour, while that of lead is white, which therefore is not so characteristic.

and ultimately quite black; while, on the other hand, the arsenical yellow remains permanent, or nearly so, for some time, when it becomes brown.”\* This statement is unquestionably correct, as I have verified its accuracy by actual experiment; but it is not so completely applicable under every variety of circumstance, as, from the observations of Dr. Paris, we might be led to imagine. We must observe, that it is merely capable of distinguishing between two fluids, the one holding arsenic and the other an alkaline phosphate in solution; and it enables us to identify them. But it may happen that the suspected liquor may contain both phosphate of soda and arsenic, and almost certainly muriate of soda. In these cases the indications will be very uncertain, and undoubtedly such as should not be relied on by unpractised operators.

Dr. MARCET suggested the superior efficacy of ammonia for the purposes of the double decomposition. This suggestion led Mr. HUME, the original proposer of nitrate of silver as a test for arsenic, to form an ammoniuret of silver at once, by throwing down the oxide of silver by adding ammonia to the solution of the nitrate,† and then redissolving nearly the whole of the precipitate by a further addition of ammonia. A portion of the precipitated oxide should be left, to prevent an over-excess of ammonia, which would prevent the precipitation of the arsenite of silver. Dr. Paris observes upon this preparation:—“This is an improvement of considerable value; for, while it obviates the necessity of ascertaining the exact proportion of alkali required in each experiment, it possesses the desirable property of not disturbing the solution of phosphate of soda.”‡

With the former part of this statement I perfectly coincide; but I must beg leave to say, that the latter will not be war-

\* Pharmacologia, art. Arsenic; and Med. Jurisprudence, vol. ii. p. 241, 242.

† I am at a loss to understand the following passage in the Pharmacologia and Medical Jurisprudence:—“And for this purpose Dr. Marcet suggested the superior advantages which would attend the application of ammonia, in all those cases where the arsenic had not been previously combined with a fixed alkali; since the former,\* when added singly, does not decompose nitrate of silver.” Hence we should infer that ammonia will not disturb nitrate of silver; but, in the directions for the preparation of an ammoniuret of silver, which immediately follow, we are desired to dissolve “ten grains of lunar caustic in ten times its weight of distilled water; to this to add, guttatim, liquid ammonia, until a precipitate is formed.”—The truth is, that the addition of ammonia to nitrate of silver in solution, immediately throws down the oxide of the metal. When, however, the quantity of ammonia exceeds the equivalent for saturating the nitric acid, it begins to redissolve the precipitated oxide.

‡ Pharm. ubi supra; Jurisprudence, vol. ii. p. 244-5.

(\* Ammonia.)

ranted by an appeal to experiment. The ammoniuret of silver throws down copious yellowish-white precipitates, with the solutions both of phosphate and muriate of soda; and, although the practised operator is in no danger of mistaking these colours for those of arsenic, yet the above observation, from such high authority, may betray an inexperienced investigator into a fatal mistake. Such are the results of my investigations into the validity of the nitrate of silver as a reagent for the detection and identification of arsenic; and it is from these objections, which suggested themselves during my experiments, that I am induced to recommend precipitating those salts, which are likely to confuse our examinations, if they should be found to be present.

The other reagent in most repute is the solution of copper. The arsenious acid forms with oxide of copper an insoluble salt, of a beautiful green colour, named, from its discoverer; "Scheele's green." The sulphate of copper is the salt generally used for the purpose under consideration. In this case also we are obliged to resort to double decomposition; for the other acids exert a stronger affinity towards copper than the arsenious. Dr. BOSTOCK specifies the exact proportions of arsenic, sulphate of copper, alkali, and water, capable of producing the most conspicuous effect. This information must be regarded as matter of curiosity, rather than of practical utility to the purposes under review. We commonly meet with the arsenic dissolved, or we are obliged to dissolve it, in order to effect its separation from substances with which it may be intermixed, and the presence of which would tend to embarrass and confuse our experiments. In such cases it is evident that we can form no estimate of the quantity of arsenic, so as to enable us to apportion the other agents, and adjust the whole in their relative proportions.

Mr. HUME has proposed the ammoniuret of copper for the purpose of detecting and identifying arsenic in solution. This may be formed by adding ammonia to any of the soluble salts of copper,—as the sulphate, nitrate,\* acetate, &c. and continuing the addition till nearly the whole of the precipitate is redissolved. The solution thus prepared assumes a beautiful deep-blue colour, which is changed to a green when added to any fluid holding arsenic in solution. The transition from deep-blue to green is extremely evident and satisfactory: add to which, that these preparations are not affected by the alkaline phosphates or muriates. This assertion is not the result of theory, but of actual experiment.

\* I have some reason to believe the nitrate the preferable salt for this purpose.

I added the ammoniuret of copper, prepared from the sulphate, to a strong solution of phosphate of soda, and no precipitation whatever took place. I tried the same experiment with the ammoniuret prepared from the nitrate and deutacetate, and with the same results. But, on adding a solution of arsenic to each of these three fluids, the green colour was immediately evolved.\*

It adds much to the certainty to perform these experiments upon a piece of white card, a tile, or white plate: the greenish precipitate is immediately deposited, and becomes sufficiently evident for thorough conviction. A drop or two is quite sufficient for the purpose. Hence it may be inferred that, as far as we are at present acquainted, the ammoniuret of copper is the most certain, as being subject to the fewest sources of fallacy.†

It may now be inquired, after having applied our reagents, and finding no traces, are we to conclude that arsenic does not exist in the suspected fluid? This question may be fairly replied to in the negative. I diluted a solution of arsenic till the addition of the most delicate reagents afforded no sensible indication of its presence. But, upon distilling the mixture when the fluid became concentrated, the action of the test became sensible. Hence, in all suspicious cases, it would be well to concentrate the suspected fluid by distillation or evaporation.

It will frequently happen that, when a fluid has been evaporated nearly to dryness, by continuing the heat, if the process have been performed by distillation, or applying a sufficient temperature, if otherwise,—that the arsenic will sublime, and may thus be collected and treated by the usual reagents.

I shall now proceed to offer a few observations upon the detection and identification of Corrosive Sublimate.

Various means have been devised for this purpose: for an account of them, I refer the reader to PARIS's *Pharmacologia* and *Medical Jurisprudence*. I shall, therefore, confine myself upon this question to a process which has occurred to me, but which I do not find noticed in the systematic works. The habitudes of mercury with iodine afford ample and satisfactory means for its identification. If a fluid hold corrosive sublimate in solution, provided the solvent be not a spirituous

\* The ammoniuret of silver, treated in the same manner, threw down dense copious precipitates, which obscured the results, and were by no means characteristic.

† Tannin, in a weak solution of arsenic, will obscure the action of the ammoniuret of copper; but this source of fallacy will be considered hereafter.

one, immediately on the addition of a dilute\* solution of hydriodate potass, a yellowish cloudy appearance occurs, which soon assumes a beautiful red colour. This is an extremely delicate test; but, that we may obviate every source of fallacy, we should take care to distil off all those menstruums, spirits, essential oils, &c. in which the precipitate is soluble, and which might hence obscure its indications. The red precipitate, which is thus formed, exhibits distinctive characters, as its solubility in alcohol, &c. and in an excess of the precipitating agent, hydriodate of potash. Exposed to a moderate heat, it passes to a yellowish white colour, and iodine in vapour is seen to rise; and, lastly, the whole evaporates. Triturated with zinc or iron filings, it is decomposed, and metallic globules of quicksilver may be readily distinguished, intermixed with the mass. The best mode of exhibiting this phenomenon is to introduce the mixture, moistened with water, into a glass tube or the bowl of a tobacco-pipe, and urge it gently with the blow-pipe. Let the contents, when dry, be thrown out upon paper, and the metallic globules may be seen very distinctly; even though the quantities subjected to experiment may have been very minute.†

Corrosive sublimate is very readily decomposed; and therefore, although this poison may have been administered, the tests will afford no indication of its presence, in consequence of the partial reduction of the sublimate, and its conversion into calomel. Indeed, the means usually resorted to for relief, generally effect this reduction. Calomel, however, it should be recollected, is insoluble, while at the same time it is highly volatile, and easily sublimed by heat. In such cases, the solid contents of the stomach should be exposed to heat in a proper vessel, and the sublimed powder triturated with hydriodate of potass; when, if the powder be calomel, a greenish-yellow colour is produced, owing to the double decomposition which ensues. The resulting protiodide may be decomposed as above, and metallic mercury evolved.

Hitherto we have been supposing the most simple case, —viz. that the suspected fluids are not only transparent, but colourless. However, it must be obvious that, in cases of poisoning, we may expect to be embarrassed both by the

\* It should be dilute, as the periodide is soluble in an excess of the hydriodate. It is also soluble in spirituous menstruums and essential oils.

† Hydriodate is a more preferable means of distinguishing corrosive sublimate from arsenic, than the means recommended by BRUGNATELLI, which is not only complicated, but unsatisfactory.

opacity and the colour of the vegetable and animal contents of the stomach. To obviate these sources of confusion, various ingenious methods have been proposed.

The opacity of the fluid may generally be removed by passing it through a common filter. By this means the substances mechanically suspended, or intermixed with the fluid, will be retained, and it will become transparent. But, if the opacity depend upon (as is often the case with the colouring principles,) matter soluble in the fluid, then other means must be adopted.

Mr. PHILIPS proposes boiling the fluid with animal charcoal. The powers of the charcoal, however, in decolourising fluids, appear to me to be purely mechanical, and that it only acts as a very fine filter. It is, I believe, generally imagined that animal charcoal destroys vegetable and animal colouring matter by some chemical agency, which it exerts over these principles. Some experiments, however, which I instituted for determining the question, have induced me to adopt a different view, and to refer its effects entirely to mechanical principles.

*Experiment 1.*—I passed some infusion of litmus through ivory black, placed on a filter. The fluid passed through rapidly, but the colour was not so deep. The same fluid was returned, and passed through again; and this was repeated several times in succession. On each successive filtration, the infusion was longer in passing through, and there seemed to be less colouring matter. At last it appeared almost colourless; but, on adding a drop or two of sulphuric acid, a vivid red colour was immediately evolved.

2. The same phenomena followed on boiling, only the red colour was rather weaker.

3. Tea, with sugar and milk, were nearly discoloured by repeated filtration. By boiling, the colour was rendered less sensible.

4. Tincture of myrrh passed nearly unaltered; nor had boiling a more sensible effect.

5. A mixture of tincture of myrrh with water, in equal parts, was passed through. On adding water to tincture of myrrh, a portion of the resin is set at liberty by the solution, and was, of course, separated by passing through the filter. However, the colouring matter could not be wholly removed, even by boiling with ivory-black; although the evaporation of the alcohol, consequent on boiling, greatly reduced the quantity of colouring matter held in solution by the alcohol.

6. Several vegetable infusions, as senna, cascarrilla, rhubarb, bark, jalap, quassia, &c. were similarly treated; but

very little effect was made upon the colour of the fluid by these means. Indeed, passing them through fine sand had very nearly the same effect in reducing the quantity of colouring matter. Tea, soap-suds,\* &c. were rendered nearly equally colourless, whether passed through sand or ivory-black; making allowance for the greater fineness of ivory-black, and of course its superior delicacy as a filter.

Certainly, I found that ebullition with ivory black considerably enhanced its powers. Thus, vegetable infusions generally came through less coloured (and frequently colourless) after boiling, than could be effected by any number of successive filtrations. I was almost inclined to attribute some kind of chemical agency to the ivory-black on observing this circumstance, although I could form no rational opinion whatever of its nature. But, upon reflection that long boiling renders some of the vegetable principles—extractive, for instance,—insoluble, it occurred to me that the removal of the colouring principle was owing to a similar cause, and that, in all probability, simple boiling would prove as effectual as boiling with animal charcoal: I therefore simply boiled these coloured fluids for some time, and found that it came through as little coloured as when ivory-black was boiled with it. Hence it may be concluded—

1st. The agency of ivory-black in decolourising fluids is purely mechanical, and that it acts merely as a delicate filter.

2. Boiling with this agent seems merely to precipitate the colouring matter, which is separated by the subsequent filtration.

3. When the colouring matter is chemically dissolved in the fluid, filtration through animal charcoal will not separate it: nor is it separable by boiling even, unless the process render the colouring matter insoluble,† when the agency of the charcoal is purely mechanical.

4. In mixed fluids, the colouring matter may be held in solution by a menstruum, the solvent powers of which may be weakened by dilution; or the menstruum may be volatile, and readily evaporated by a moderate elevation of temperature: in either case, the colouring matter may be precipitated, and afterwards separated by filtration.‡

\* In soap-suds, the opacity and colour evidently depends upon clay, dust, grease, &c. mechanically suspended in the fluid. Filtering separates these; but soap in solution was readily detected in the filtered liquid, by adding a few drops of acid when the oil was set at liberty.

† We must not forget that boiling reduces the quantity of the solvent.

‡ I have not considered it necessary to adduce experimental proof of the inefficacy of ivory-black in preventing the passage of substances held chemically in solution.



Having, therefore, fully established that the action of ivory-black, in separating colouring matter, is purely mechanical, it may now be inquired what is the best mode of managing it so as to secure its full effects. From what has been already established, it is evident that boiling the coloured fluid with the charcoal is unnecessary; but it has been ascertained above that colouring matter, which passed through on the first or second attempt, is separated by repeated filtration. This appears to me to arise from the porous texture of the mass, when in its dry pulverulent state. As, however, it becomes saturated with water or fluid, the particles are brought closer together,\* and the mass becomes denser or more pasty. Hence the difficulty opposed to the passage of the minutest particles of colouring matter in a state of mechanical suspension. It has been remarked by Mr. Phillips, that in some cases the ivory-black seemed to contain a muriate. That intended for a filter, therefore, should be boiled in distilled water, and then washed with boiling distilled water, till the washings cease to precipitate muriate of silver on the application of lunar caustic. After these repeated washings (which should be performed under any circumstances), the ivory-black forms a dense solid cake, of a pasty consistence. A filtering paper, of a conical form to fit into a funnel, should now be formed, and the internal surface of this filter, should be lined with the charcoal paste; and this lining should be spread pretty thickly up to the top of the filter, for otherwise the colouring matter may pass through the upper part of the paper, where it is not defended by the charcoal coating. Matters being thus arranged, the coloured fluid may be cautiously poured into the filter, and allowed to ooze through, which it will do but very slowly. If the filtered fluid should still be coloured, it may now be boiled with a little ivory-black, in a Florence flask, or any other convenient apparatus, and again passed through the filter, when, in all probability, after two or three successive filtrations, the fluid will pass through colourless.

If a solution of any salt be passed through or boiled with ivory-black, it may still be recognised afterwards by the application of the appropriate reagents. The salts of copper are not only recognisable, but the filtered fluid exhibits the characteristic colour.

\* This is the principle upon which brewers return the first flowings from the mash-tub. When the wort first passes, it is quite thick, owing to the finer particles of the malt escaping: these flowings are returned repeatedly, till they come through quite fine. By the returning, the grains are caked about the cradle into a dense paste, which intercepts the firm particles of the matter, and prevents their escape.

It has been already observed, that, when the colouring matter is chemically dissolved in the fluid, this process will not answer. In cases of poisoning, the only species of colouring matter that we can expect to interrupt our proceedings must be of vegetable or animal origin. Those from the mineral kingdom generally arise from the exhibition of emetics, under the direction of the practitioner. Sulphate of copper being the only agent likely to interrupt the process, the practitioner will, of course, know how to remove it, if he should have prescribed it as an emetic. The colouring matter from the other sources, I believe, will seldom be found to resist the action of chlorine. If the processes above described should prove ineffectual in removing the colouring matter, then the practitioner may proceed to pass a current of chlorine gas through the coloured fluid, which generally will be found effectual in destroying the agency of the colouring principles. After passing the gas through the fluid, it may be again passed through the filter. It will frequently happen that it will have a green tinge from the admixture of chlorine. Boiling the fluid, however, will expel the chlorine, and render the fluid perfectly colourless.\* If the reagents usually employed give no indications of arsenic, then the whole of the tested portions should be evaporated, when frequently, during the concentration, the arsenical precipitate will become apparent.

With the view of ascertaining the efficacy of this plan, I formed the most heterogeneous mixture I could devise, consisting of wine, beer, tea, soap-suds, infusions of senna, quassia, bark, with other tinctures, and divided the mixture into two equal parts. To one part a quantity of arsenic was added, while the other received no such addition. Both portions were treated separately, according to the process above mentioned for removing the colouring matter. Both were rendered nearly colourless, and, on applying the tests to portions of each, the one containing the arsenic gave evident indications of its presence; while no such result followed the application of the tests to the portion which contained no arsenic.

It may here certainly be objected, that the above, though curious, are not precisely the circumstances under which

\* It should be recollected that these repeated boilings will tend to evaporate the watery part, and thus some arsenic may be precipitated. To obviate this, distilled water should be added, so as to keep up the original quantity of the solvent. If no traces of arsenic can be discovered, then the filtering paste should be exposed to heat with potash, when possibly metallic arsenic will sublime.

arsenic is presented to us in the human stomach, in cases of poisoning. In order to meet this objection, I endeavoured to bring the circumstances of the case to resemble that of poisoning as nearly as possible. For this purpose, a hearty dinner, consisting of fish, soup, meat (fresh and salt), with a due proportion of bread, potatoes, vegetables, salad, &c. was eaten; after which pastry, with cheese, was eaten, and a tolerable quantity of beer drank; three glasses of white and three glasses of port wine were taken, and after dinner a little fruit, with a glass of brandy and water, was taken. A cup of coffee, and one of strong tea, with sugar and milk, were the last things swallowed.

Under these circumstances, ipecacuanha was administered in twelve-grain doses, till the stomach was excited to eject its contents, which occurred after the exhibition of the third dose. The contents of the stomach was received into a basin, in which five grains of arsenic had been previously placed. The whole was now boiled with nearly a pint\* of distilled water. The liquor was then passed through filtering paper, but the colour and consistence of the filtered fluid was such as to prohibit the application of tests, with any prospect of success. It was therefore boiled with ivory-black, passed through a filter prepared as above directed, and the remaining portion of the pint of distilled water, in a state of ebullition, poured on, so as completely to dissolve any portion of the arsenic which might have escaped solution. A current of chlorine gas was now passed through the filtered liquor, till it exhibited little else than the green colour characterising chlorine gas in solution, all the impurities having subsided. The admixture with chlorine was now again passed through the charcoal filter, by which all the sediment that had subsided was separated, and the fluid was perfectly transparent, though of a greenish colour. It was now boiled, by which the chlorine was expelled, and the fluid became perfectly transparent and colourless.† The application of the various reagents to separate the portions, gave the most decided and satisfactory indications of the presence of arsenic.

I feel almost perfectly assured that the above mode of proceeding will be found adequate to the detection of arsenic in every possible case; and it should be borne in mind that the means of discovering this poison in the humid way should be rendered subsidiary to its metallisation. The collection of

\* f ̄ xij. by admeasurement.

† If any sediment should appear on boiling to expel the chlorine, it may be filtered, when it will be removed.

the precipitates,\* and their subsequent decomposition by black flux, should never be neglected.

It is evident that the various means of discovering and identifying arsenic may be had recourse to, by dividing the fluid into as many portions as we wish to institute experiments; and, in a case of such importance, these should be as numerous and diversified as possible. I would recommend selecting a portion for evaporation to dryness.† From a portion of the residue, the arsenic may be sublimed; and the arsenic remaining in the other portion, heated in a glass tube with a few grains of pulverised nitre, will immediately evolve nitrous gas; and, by adding water, arseniate of potass will be recognised on the application of lunar caustic, or nitrate of silver in solution. The sublimed arsenic may be similarly treated.

I have been actively engaged in the above investigation now nearly four months. Whoever is at all acquainted with the intricacies of the subject, and the various and diversified inquiries which may present in cases of poisoning, will at once admit the difficulties which may occur and tend to embarrass the medical jurist. Yet it is upon record, and indeed we frequently meet with instances of persons undertaking to solve the problem of poisoning, who certainly manifest as little competence to this task as to any other which possibly could be proposed to them. I should therefore recommend the practitioner who is not habituated to chemical manipulations,‡ to apply to those more practised than himself. Some, perhaps, may consider it a reproach not to be capable of the operative solution of such chemical problems; but I would remind the practitioner, that he may be fully competent to the practical duties of his profession, without being an operative chemist. If the physician is theoretically acquainted with the laws of chemical action, and with the reactions which chemical agents mutually exert on each other, he will never be betrayed into those blunders of prescription which but too often stand as a record of the ignorance of the prescriber,§ and a monument of opprobrium to his profession.

\* After a great number of trials, I am inclined to think that the precipitation of arsenic from its solution by a current of sulphuretted hydrogen gas, and the subsequent reduction of the resulting sulphuret by treating it with potass, is the most certain and easily conducted process.

† This should be done at a temperature below  $380^{\circ}$  Fahr., otherwise the arsenic may be volatilised, and escape.

‡ It may be imagined that any one initiated or conversant with the theory of chemical action, is capable of undertaking the operative part. Let those who indulge in this opinion undertake the operative solution of some chemical problem, and they will soon be convinced of their error.

§ Vide PARIS's *Pharmacologia*, *passim*.

To such I do not address myself, but to men capable of the practical duties of the profession, and to whom it certainly cannot be objected, as matter of reproach, that they are not thoroughly practised in all the more delicate manipulations of operative chemistry.

*Henley upon Thames; 1<sup>st</sup> August, 1826.*

P.S.—We are generally told to test the suspected fluids in wine-glasses: these vessels are too wide, and thus tend to render the phenomena less sensible. Long, narrow one or two ounce phials, as recommended by Dr. PROUT for examining the morbid states of the urine, I conceive much preferable; and the changes induced by the application of tests to chemical agents in such vessels, are much more easily observed.

#### DISEASES OF THE TESTICLE.

*Cases illustrative of the Pathology and Surgical Treatment of some of the Diseases of the Testicle; with Observations.* By B. C. BRODIE, F.R.S. &c. &c.

(Continued from page 312.)

#### IV. *Encysted Hydrocele.*

IN some cases, in consequence of inflammation at some former period, the opposite surfaces of the tunica vaginalis adhere throughout a great part of their extent; while a serous fluid is collected in that part of the tunica vaginalis in which the adhesions are wanting, so as to form what may be regarded as a partial hydrocele.

In other cases we find a hydrocele with a contraction in the centre, giving the tumor somewhat of the form of an hour-glass. In general, at the contracted part there is a channel of communication, by which the fluid may be made to pass from one portion of the tumor into the other; but occasionally it happens that the contraction in the centre is so complete that this channel of communication is wanting, and then, although the upper and lower portions of the tumor are connected with each other, their cavities are distinct, so that, when one of them is emptied by means of the trocar, the other remains distended with fluid.

Now, such tumors are liable to be confounded with the tumor of the encysted hydrocele, although really and essentially different from it. The latter disease is, in fact, altogether independent of the tunica vaginalis, and bears a much closer resemblance to a common encysted tumor than to a proper hydrocele.

**CASE XVI. *Dissection of an Encysted Hydrocele of the Spermatic Chord.***

A young man, who laboured under an encysted hydrocele of the spermatic chord, was admitted into St. George's Hospital, under the care of the physician, on account of another disease, of which he died in February 1814.

On examining the encysted hydrocele after death, it was found to be a distinct cyst, having no connexion with the tunica vaginalis. The cyst was composed of a thin transparent membrane, containing a colourless fluid, and lay in the cellular texture of the spermatic chord, between the spermatic artery and vein and the vas deferens. It was of the size of a small walnut, perfectly moveable upward and downward, in consequence of it having only a very loose adhesion to the surrounding parts.

**CASE XVII. *Dissection of an Encysted Hydrocele of the Epididymis.***

An elderly gentleman had for many years a tumor connected with one testicle, which, however, gave him neither pain nor inconvenience. It appeared as if the testicle on this side was divided into two lobes, each as large as the testicle itself is under ordinary circumstances.

In April, 1821, the patient died in consequence of an extensive abscess, which had formed in the substance of the prostate gland. On examining the body after death, it was ascertained that the tumor of the testicle was formed by a membranous cyst, containing a watery fluid, and attached to the epididymis. The tumor was covered by the tunica vaginalis, lying between it and the epididymis, and connected to them only by a very fine cellular texture.

**CASE XVIII. *Dissection of an Encysted Hydrocele of the Testicle.***

A man, who died in St. George's Hospital of another disease, was discovered, after death, to have had encysted hydrocele of one testicle.

The cyst was composed of a thin membrane, containing a colourless fluid, and was of about the size of a walnut: it was attached to the anterior part of the testicle, below the epididymis. The inner layer of the tunica vaginalis was reflected over one side of the cyst, while the cyst on the other side rested on the fibrous membrane of the tunica albuginea, by which it was in consequence separated from the glandular structure of the testicle.

It was evident that the cyst had been originally formed between the tunica albuginea and the inner layer of the tunica vaginalis, and that, in its growth, it had separated from each other these two membranes, which under natural circumstances are so closely adherent to each other.

The encysted hydrocele of the spermatic chord, being very

loosely connected to the surrounding parts, forms a very moveable tumor, which may be made to ascend into the groin or to descend into the scrotum, accordingly as pressure is applied to it from above or below. When of a small size, it may be made to enter the abdominal ring, and hence is liable to be mistaken by a superficial observer for an inguinal hernia. It is, for the most part, unattended by pain, and not productive of actual inconvenience to the patient, except such as arises from its bulk. On the other hand, the encysted hydrocele of the testicle or epididymis, being bound down by the internal layer of the tunica vaginalis, is necessarily fixed in its situation, giving the testicle the appearance of being double or lobulated. In some cases the patient is very little molested by it; but in other cases I have observed that he experiences a good deal of pain, in addition to the inconvenience which is caused by the bulk of the tumor. In young persons, the encysted hydrocele, even when of a considerable size, admits of being cured by the application of stimulating lotions to the skin. In the adult, however, I have never known this method of treatment to succeed; but a cure may be effected by passing a seton through the cyst, or by making an opening into it, and dressing its cavity with lint.

The following cases are intended to illustrate the foregoing observations :

*CASE XIX. Encysted Hydrocele of the Spermatic Chord in a Boy, cured by the application of a Stimulating Lotion.*

In September, 1818, a gentleman brought me his son, a boy of ten years of age, saying that he had a hernia, for which he had been recommended to wear a truss. The supposed hernia was a globular tumor, loosely connected to the spermatic chord, capable of being moved upwards as high as the groin, and downwards as low as the scrotum. It could be made to pass through the external abdominal ring: it did not, however, then enter the abdomen, but remained in the inguinal canal, making a projection behind the tendon of the external oblique muscle. I prescribed a lotion of the muriate of ammonia, dissolved in distilled vinegar and alcohol. This was kept constantly applied for two or three months, at the end of which time the tumor had entirely disappeared. There has been no return of the tumor up to the present period, (August 1826.)

*CASE XX. Encysted Hydrocele of the Spermatic Chord in an Infant, cured by the application of a Stimulating Lotion.*

In the summer of 1820, I was consulted; with Mr. HILLMAN, of Argyll-street, respecting a little boy, an infant a few months old, whose parents had supposed him to labour under a hernia.

On examination, I discovered a tumor connected with the spermatic chord, apparently containing fluid, and of the size of a large walnut. The tumor was distinct from the testicle below, and from the abdominal ring above, and the bulk of it was not increased when the child cried. A puncture having been made with a lancet, a considerable quantity of fluid escaped, and the tumor was no longer perceptible. The wound made by the lancet healed; but in a short time the tumor was again discovered, and became of as large a size as before the puncture. I then advised the application of a strong solution of the muriate of ammonia, and under this treatment the tumor disappeared in the course of a few months.

CASE XXI. *Encysted Hydrocele of the Spermatic Chord in an Adult, cured by the introduction of a Seton.*

A gentleman, in the year 1813, consulted me respecting a small hydrocele of the tunica vaginalis of the right testicle. The hydrocele was injected, and he was cured.

In the year 1817, he consulted me respecting a tumor in the right groin, which he had first noticed soon after the cure of the hydrocele. The tumor was of the size of a walnut, and manifestly contained fluid. It was connected with the spermatic chord, and capable of being moved upwards and downwards in the chord. It could even be made to enter the external abdominal ring, and hence some practitioners, who had been consulted, had been led to regard the case as one of hernia. More careful examination, however, rendered the difference between this tumor and that of hernia sufficiently distinct. When it had been made to pass through the abdominal ring, it nevertheless did not enter the abdomen, but remained just perceptible behind the tendon of the external oblique muscle; and, when it was made to descend into the scrotum, the spermatic chord was left uncovered between the tumor and the abdominal ring. The tumor varied in size, and was observed to be diminished after two or three days of rest.

A solution of muriate of ammonia having been applied for some time without any evident advantage, I performed the following operation. The integuments over it having been divided with a sharp-pointed bistoury, the tumor presented itself as a transparent cyst, containing a colourless fluid. I then passed through the cyst, from below upwards, a straight flat needle, carrying a few threads of silk. The fluid of course escaped, and the cyst collapsed. The silk was allowed to remain, forming a small seton, which was withdrawn at the end of a week. The wound immediately healed, and nothing remained of the disease except a very small solid substance, which was only just perceptible, and which soon disappeared.

The patient has continued without any recurrence of the disease up to the present time, (August 1826.)



**CASE XXII.** *Encysted Hydrocele of the Spermatic Chord in an Adult, cured by the introduction of a Seton.*

April 4th, 1826.—A gentleman consulted me respecting a tumor in the left groin containing fluid, and of the size of a double walnut. It was connected with the spermatic chord, lying on the anterior part of it, and so far moveable that it admitted of being pushed downwards into the scrotum, and upwards as high as the abdominal ring; which, however, it was considerably too large to enter.

The tumor was punctured with a trocar, and a transparent colourless fluid escaped, which, being exposed to heat in a spoon over the flame of a candle, proved to contain no coagulable matter, and evaporated, leaving a residuum so small in quantity that it was barely perceptible.\* A lotion, containing distilled vinegar, spirit, and muriate of ammonia, was prescribed, to be constantly applied to the part.

10th.—The fluid had collected again, and the tumor was as large as ever.

13th.—A straight flat needle, carrying a double silk thread, was passed through the centre of the tumor. The silk threads were allowed to remain during four days, and then withdrawn. In a few days after the removal of the seton, suppuration ceased. A small hard tubercle remained, indicating the part at which the encysted hydrocele had been situated; and this gradually disappeared.

**CASE XXIII.** *Encysted Hydrocele of the Testicle, cured by the introduction of a Seton.*

A. B., a young man, in the year 1812, observed a small tumor connected with the right testicle. The tumor gradually increased during the three following years, after which it remained nearly stationary. In April, 1818, he consulted me respecting it. At this time there was a tumor attached to the upper and outer part of the right testicle, nearly as large as the testicle itself, and evidently containing fluid.

On the 16th of April, I punctured the tumor with a lancet, and about a quarter of an ounce of watery fluid escaped. I then introduced an eye-probe, carrying a few threads of silk into the puncture, and, having made a second puncture on the opposite side, I passed the probe through the counter opening, and thus drew the silk threads, as a seton, through the cavity of the cyst.† A very

\* The fluid in this case differed from that of common hydrocele, which entirely coagulates on the application of heat. Whether the fluid of encysted hydrocele is always free from coagulable matter, as it was in this instance, has not (as far as I know) been ascertained.

† Although it succeeded perfectly in this instance, my experience in many other cases has satisfied me that this is not the most convenient method of performing the operation; and that it is better to employ a single instrument, such as a flat needle, for the double purpose of puncturing the cyst and introducing the seton.

slight degree of inflammation followed the operation. On the 18th of April, the seton having slipped out, it was re-introduced, and allowed to remain three days longer, when it was altogether withdrawn. Suppuration had taken place in the wound round the seton. The discharge of pus gradually lessened, and in a few days there was only a small solid tubercle left in the place of the original disease; and this had almost entirely disappeared when I again saw my patient, on the 9th of May following.

As the cyst of the true encysted hydrocele is proved by dissection to be altogether a new formation, independent of the tunica vaginalis, it cannot be a matter of surprise that a disease corresponding to it should sometimes be met with in the groin of the female sex. I have lately seen a lady who has a cyst in one groin, immediately below the abdominal ring, as large as a hen's egg, containing fluid, to a certain degree moveable, and so entirely free from pain that the discovery of it was almost accidental. The following case affords another example of such a tumor occurring in the female sex.

*CASE XXIV. Tumor in the Female Groin, corresponding to the Encysted Hydrocele, and cured by an Operation.*

In September, 1824, I was consulted, in conjunction with Mr. FREEMAN of Spring-gardens, by a female patient with a tumor in the groin, of the size of a pigeon's egg, somewhat moveable in the cellular texture, and containing fluid. The examination of the tumor occasioned pain, extending from the groin into the abdomen; from which circumstance we were led to suspect that it was attached to the termination of the round ligament of the uterus, where it passes out through the abdominal ring to be gradually lost in the labium pudendi. The case had been supposed, by a gentleman who had been consulted previously, to be one of irreducible hernia, but a careful investigation of it satisfied us that this opinion was erroneous.

An incision having been made in the groin, so as to expose the surface of the cyst, the latter was laid open, and a serous fluid escaped from its cavity. A portion of the cyst was then removed with the knife, and some lint was introduced into that which remained. Suppuration having taken place, the wound was dressed daily to the bottom, until it was filled up with granulations. In

If we use a lancet for the first purpose, and a probe for the second, it often will happen that, in consequence of the thin membrane of the cyst becoming immediately collapsed, the opening in it ceases to correspond with the opening in the skin; and then the probe, instead of taking its proper course, penetrates only into the loose cellular texture of the scrotum. The latter affords so little resistance, that the surgeon may easily be led into the belief that the probe is being passed through the cavity of the cyst, when in reality it is sliding through the parts external to it. The error is afterwards demonstrated by the failure of the operation and the return of the hydrocele.

about a month it was healed, and there were no perceptible remains of the tumor.

As the encysted hydrocele is not a disease from which any ill consequences are to be apprehended, there is no reason for the patient being subjected to the inconvenience of an operation for its relief, until it begins, in some way or other, to be a source of actual inconvenience; and, on the other hand, whenever this period arrives, there is no reason why an operation should not be at once resorted to. It is right, however, that I should not pass over unnoticed one case which came under my observation, in which the exposure of the cavity of an encysted hydrocele of the testicle was followed by severe inflammation of the testicle itself. At the end of a week, when this began to subside, the patient was seized with pain in the head, and other symptoms of determination of blood to the brain, requiring the free use of the lancet. These symptoms having abated, he became affected with cough and pain in the chest, which also required loss of blood from the arm. At the end of a month, the wound in the scrotum having been for some time healed, and the patient apparently convalescent, so as to undertake a journey of some miles into the country, there were symptoms which seemed to indicate a sudden effusion of fluid into the cavity of the chest, and which were followed by death. Here there was a disturbed state of the constitution beginning with inflammation of the testicle, but certainly not to be ascribed to the operation, so much as to a peculiar condition of the general system at the time of its being performed. In all probability, any slight accidental injury, exposure to cold, and various other causes, of which it might have been impossible to take cognizance, would, under the same circumstances, have been followed by a similar train of symptoms, leading to the same result.

I shall conclude this section with a brief account of two cases, which must be regarded as being rare, as I have never met with any others similar to them. I leave it to future inquirers to explain the exact nature of the disease, merely observing that they are not improperly introduced in this place, as such cases must be liable to be confounded with those of encysted hydrocele.

CASE XXV. *The Cavity of the Tunica Vaginalis divided by adhesion into two Parts, in one of which was a Collection of a peculiar Fluid.*

A man was admitted into St. George's Hospital, on account of a disease in his lungs, in whom a tumor was attached to the left testicle, giving it the appearance of being double or lobulated. He

died of the pulmonic affection, and I did not lose the opportunity of examining the tumor of the testicle. There was an adhesion of the opposite surfaces of the tunica vaginalis, below the epididymis and nearly parallel to it, by which the cavity formed by that membrane was divided into two parts. That part which belonged to the testicle was lubricated by a little moisture, as usual; while that which corresponded to the epididymis was distended with about a quarter of an ounce of fluid. The fluid was of a dingy yellow colour, wholly different from pus, and depositing its colouring matter in the form of a yellow sediment, when allowed to remain at rest. The tunica vaginalis bore no marks of inflammation.

CASE XXVI.—Of the second of the two cases to which I have alluded, unfortunately I have no written notes. The subject of it presented himself as an out-patient at the hospital, on account of a tumor, containing fluid, attached to one testicle, nearly as large as the gland itself, and without any evidence of inflammation. I made a free opening into it with a lancet, and immediately the cyst collapsed, having discharged a dingy yellow fluid, apparently similar to that which was found to exist in the preceding case. Some degree of inflammation of the cellular texture of the scrotum immediately adjoining the puncture, followed the operation. The puncture continued to discharge fluid, and, when the patient returned to the hospital at the end of a few days, there was a fistulous sinus, surrounded by a gristly induration, opening on the surface of the scrotum, through which a probe could be introduced so as to come in contact with the testicle. The sinus seemed to be gradually healing, but I lost sight of the patient before his cure was completed.

[To be continued.]

#### INJURIES OF THE THORAX.

##### *Cases of Injuries of the Thorax, treated at the MIDDLESEX HOSPITAL.*

(Continued from page 228.)

##### *I. Case of Fractured Ribs, with Symptoms indicating a Collection of Air or Blood in the Cavity of the Pleura of the Side injured. Treated by Mr. BELL.*

JULY 31st, 1826.—William Norton, aged fifty-one, a pale and haggard-looking fellow, was brought to the hospital this day, in a state of intoxication. He had been knocked down, and several of the ribs of the left side were broken in consequence. His breathing was difficult; his pulse was hard and jerking, probably owing in part to his inebriated condition.

He was bled to  $\frac{3}{4}$  xvij.; after which a bandage was applied round the thorax; and he took a dose of Calomel and Jalap.

August 1st.—He has recovered from his intoxication, and is now sensible. The bowels have not been acted upon by

the medicine. The tongue is furred; pulse 100, and very hard; the respiration, although relieved, is still difficult. He complains of pain in his chest; and the sputum is streaked with blood.

He was bled to  $\frac{3}{4}$  ix. with the effect of reducing the pulse; and he is to take  $\frac{3}{4}$  jss. of the house-medicine every two hours, until the bowels are opened.

In the evening, the respiration became more difficult; and, although he had been twice bled so as to produce syncope, still the pulse rose again, and it was found necessary to repeat the bleeding. Notwithstanding this, however, the breathing still continued oppressed and laborious, the pulse became irregular, and, suffocation being threatened, it was thought proper to remove the bandage, which afforded him some relief. He was supported by a bed-chair; he lying upon, or rather inclining to the side affected.

From these symptoms\* it was suspected that the oppression was caused either by air accumulated in the cavity of the pleura, or by the extravasation of blood. So urgent did the symptoms at length become, that it was thought necessary to send for Mr. BELL. The question of the propriety of an operation now arose, and was decided in the negative.

In his clinical observations, Mr. Bell stated his opinion to have been formed on these grounds:—1. The great difficulty and oppression of breathing appeared to indicate some defect in the opposite side, a circumstance which might render a perforation in the wounded side fatal; in illustration of which he mentioned a case of emphysema, in which the operator made his incision into the wrong side of the chest, and the immediate death of his patient was the result. 2. That, if the difficulty of breathing proceeded from air confined in the cavity, there would probably have been some accompanying emphysema. 3. If the oppression of the lungs depended upon hemorrhage into the thorax, an opening, unless very considerable, would evacuate the serum only, but not the coagulum. He then made some remarks on the very common error of making openings into the cavities of the body for the discharge of extravasated blood; practitioners forgetting that, when blood escaped from a vessel, it no longer remained fluid, but immediately coagulated. It is, therefore,

\* The sudden and great oppression of the breathing, and the irregular pulse, gave one an idea that a collection of air or blood in the injured cavity might be the cause of such threatening symptoms: this led to a more minute examination. The whole parietes of the chest appeared to have much less motion than is usually observed when the respiration is excited. The left (the side affected) was evidently more protuberant than the right; and, on making an examination, the former was found to be an inch larger than the latter. *The man was right-handed*, and said that he did not remember having had any disease of the chest. The house-surgeon applied the stethoscope: the respiratory murmur on the left side was hardly perceptible, whilst on the right side it was distinctly heard. The next day, the respiration could not be detected on the injured side; but on the opposite side it was as audible as on the preceding day.

by no means so easy to evacuate the extravasated blood as might be at first supposed; and he gave as an example the practice which had been injudiciously recommended, of opening the dura mater for the discharge of effused blood.

Mr. Bell, in his clinical lecture on this case, took occasion to refer to the structure of the thorax; showed how the centre of motion could be changed by the change of position; and that the side of the thorax hurt was made the fixed point by lying on it, so that the other side might be more freely dilated. Had the patient lain on the sound side, then the motion of both would have been impeded,—the one by the hurt, the other by the position.

August 2d.—Respiration is more easily performed; the other symptoms continue much the same. He has some cough, for which a demulcent mixture, with compound tincture of camphor, was ordered to be taken three times a day. The bowels have been freely opened, and the pulse has lost some of its hardness, but is still irregular.

3d.—Little alteration in the symptoms till towards evening, when his breathing again became more difficult; and, as the pulse had also acquired more strength, general blood-letting, to the amount of sixteen ounces, was once more had recourse to. The blood has been cupped and buffed throughout: in that taken to-day, the crassamentum was more easily broken down, and the serum was in greater quantity.

A draught, consisting of Acetate of Ammonia, Tartarised Antimony, and Compound Tincture of Camphor, three times a-day.

4th.—The respiration is performed with much more ease; pulse eighty-eight, and a great deal softer. He is completely blanched, and has a truly ghastly appearance.

5th.—Much better. The bandage reapplied, from which he has experienced great relief.

14th.—To-day he had an attack of fever, accompanied by violent pain in the head and some degree of delirium; pulse quick; tongue dry and furred.

Eight ounces of blood were taken from the arm, with manifest relief to the symptoms; and he was ordered to continue the Antimonial Mixture, with the omission of the Compound Tincture of Camphor.

16th.—All the symptoms of fever have subsided.

19th.—Discharged cured.

#### V. *Case of Fracture of the Sternum.* Treated by Mr. JOBBENS.

Dennis Pade, aged thirty-five, was admitted into the hospital, June 26th, 1826, in consequence of an injury which he had received by falling from a hayrick across the shaft of a cart, a height of about fifteen feet. It appears that he fell with the whole weight of his body upon the sternum and anterior part of the chest, and that he was thus as it were doubled over the shaft.

He was insensible for some time after the fall. When brought to the hospital, he had somewhat recovered, and could relate many of the circumstances connected with the accident. His breathing was difficult and constrained, and he complained of much pain in the upper part of the sternum. He spoke in a whisper, and appeared to be fearful of raising his voice.\*

On examination, there was found to be a transverse fracture of the upper part of the sternum, near the junction of the triangular and middle portions of that bone. The inferior division of the fractured bone was considerably elevated above the level of the superior, and appeared in some degree to overlap it. Efforts were made to replace the fractured bone, by putting pillows under the back, and by pressing on the elevated portions during deep inspirations: any violent measures, however, were carefully avoided. These endeavours proving ineffectual, further attempts at reduction were relinquished. An examination of the ribs was made, but no injury could be detected.

He complained of a grating sensation, accompanied by pain in the situation of the fracture. The pulse was full and strong. He was bled largely, and until syncope was produced. The chest was effectually fixed by the application of a bandage, and he was supported in the half-erect posture by a bed-chair.

The bowels were well opened with the house-medicine; and he was ordered to take a draught three times a-day, containing the Acetate of Ammonia and Tartarised Antimony, but so administered as to avoid sickness.

No unfavourable symptoms occurred until the tenth day after his admission: he then complained of increased pain in his chest, and he had a troublesome cough; the pulse was full and accelerated. He was again bled until an evident impression was made on the vascular system. This bleeding effectually relieved him.

He continued to take the above draught, with the addition of half a drachm of the Compound Tincture of Camphor.

From this time he gradually improved; the grating sensation experienced on coughing diminished daily, and, on the 7th of August, there was no pain in the seat of the fracture. He complained only of an uneasy feeling near the insertion of the sixth rib into its cartilage. He left the hospital August 22d.

In reading this case at the clinical lecture, Mr. Bell remarked, with respect to the attempts to reduce the fractured portions to their natural position, that there was very considerable danger in this practice of wounding the pericardium, or even the cava or sinus. In this very case, he said, we saw that this reduction was not necessary to recovery, since the bones had consolidated, although the one portion lay over the other.

\* This symptom was observed in all the cases of injuries of the thorax, and, although apparently trivial, becomes of importance from its very constant occurrence.

VI. *Case of Fracture of the Sternum.* Treated by Mr. SHAW.

Joseph Beeson, aged twenty six, a fine and powerful young man, was admitted into the hospital August 21st, 1826. He had been attempting to move an iron plate of seven hundred weight, which rested against a wall. The weight of it overbalanced him, and he fell with this great mass of iron upon him. Two Irishmen, who saw the accident, immediately extricated him from this perilous situation.

His breathing was quick and constrained, and appeared to be performed with pain: he was evidently afraid of expanding his chest, and he spoke in a low tone of voice. About an inch and a half of the upper part of the sternum had been broken transversely from the body of the bone. A crepitus might be felt in the situation of the fracture, either by pressing on the ribs or the sternum, and he complained of great pain in this part. His pulse was full and strong.

Twenty-five ounces of blood were taken from the arm: this afforded him very great relief. A bandage was applied round the chest, and he was supported by a bed-chair. He was well purged with Calomel and Jalap; after which he took a draught three times a-day, composed of Tartrate of Potass and Tartarised Antimony.

The large and efficient blood-letting at first employed appeared to have rendered any repetition of it unnecessary. The case proceeded so favourably, the patient felt himself so well, and expressed so much anxiety to return to his family, that he was allowed to leave the hospital on the 12th of September; with injunctions, however, not to return to his work (which was laborious) for some weeks.

We have since seen him, and he has almost acquired his former strength. If he attempts, however, to lift a heavy weight, he still feels weak at the chest.

VII. *Case of Fracture of the Sternum, with Wound of the Heart,* brought to the hospital January 23d, 1826.

Richard Carpenter had been employed in repairing the third story of a house: in jumping from the window to the scaffolding erected before the house, he sprung with such force that he was unable to preserve his footing, and he was precipitated forwards into the street. He was found lying flat on his face; life was quite extinct.

*Examination.*—On dissection, the sternum was seen to be fractured in three places transversely: the fracture in the centre of the bone was the most complete; the broken extremities had been thrust in upon the cavity of the chest, and had torn both the pericardium and heart. The pericardium and anterior mediastinum were filled with blood. There was a rent in the right ventricle of the heart, which was rather more than an inch in extent. The heart was contracted, and empty.

It is to be observed, that, although the wound of the heart in its



contracted state measured only an inch, yet, after the fibres of the ventricle had been relaxed by maceration in water for a day, the same rent was four inches in length.\* It extended from about an inch from the root of the pulmonic artery, in a semi-circular form, to the apex of the heart, thus laying open the whole cavity of the right ventricle.

His spine was also fractured through the bodies of the tenth dorsal and first and second lumbar vertebræ.

VIII. *Case of Fracture of the Sternum, where the Patient died from internal Hemorrhage.* Treated by Mr. SHAW.

John Tipling, a coachman, about thirty-five years of age, was brought to the hospital on the evening of July 8th, 1826. He had been thrown from his coach-box, while driving very rapidly, and the wheel of the carriage had passed over his chest. His fellow servants state that he remained for some time insensible, during the continuance of which state he had been bled by a medical man.

He was quite sensible when brought to the hospital, and said that all his pain was in the chest; the integuments of which were black, and so much swollen, as to render an accurate examination of the sternum and anterior parts of the thorax next to impossible. On pressing on the fore part of the chest, however, a crepitus was felt; and, on passing the hand deep into the axilla, and then pressing on the ribs, the second and third yielded, and appeared to be broken near the sternum. The clavicle on the same side was loose at its sternal extremity, and seemed as if fractured at this part; but the swelling of the coverings of the chest, from extravasated blood, was so great, that these opinions could be only conjectural. His pulse was small and weak, and his respiration was somewhat oppressed. He was ordered to be kept perfectly quiet.

On visiting him about an hour and a half afterwards, we found him lying on his face. His breathing was so gentle as to be scarcely perceptible; his countenance was blanched; his pulse could hardly be felt, and he lay quite insensible. In short, he appeared to be in a dying state, and, from the symptoms present, we were led to conclude that he was sinking from internal hemorrhage.

A drachm of the Aromatic Spirit of Ammonia, in Camphor Mixture, was given him.

In half an hour, the pulse could not be felt; and the surface was cold; the continuance of respiration was the only indication of life

\* The appearance presented by the wound of the heart in this case, brings to our recollection similar appearances in a wound of the heart caused by a pistol bullet. Although the ball was so small as to belong to a pocket-pistol, the rents in both ventricles were very extensive, and of size sufficient to admit the points of three fingers. This apparent anomaly is to be explained by the action of the heart as a muscular organ, and is similar to what occurs in wounds of muscles in other parts of the body. It is a fact of the utmost importance as applied to the bladder, where the lithotomist, cutting into an empty and contracted bladder, may make an incision of frightful extent before he is enabled to extract the stone.

Brandy was now administered. About an hour after this, the pulse became again perceptible, and, gradually rising, he shortly afterwards became sensible. The brandy was then discontinued.

He remained perfectly sensible during the night: he was sitting up in his bed and talking with his friends in the morning, and appeared to be quite reconvalesced. Whilst talking with them, he suddenly fell back on his pillow, as they imagined in a fit. The house surgeon was immediately called: he found the patient drawing extremely slow and convulsive inspirations, foaming at the mouth, and quite senseless; the pulse at the wrist was no longer to be felt. He died in a few minutes.

*Dissection.*—The integuments covering the anterior parts of the chest were so much swollen with extravasated blood, as to measure nearly three inches in thickness. The second and third ribs, with their cartilages, were detached from their sternal articulations; the second was also fractured near the union with its cartilage. The part of the sternum which is connected with the right clavicle was broken off from the rest of the bone, and presented at its lower part a sharp and angular point.

The sternum being raised, a large quantity of coagulated blood was discovered gorging the cellular structure of the anterior mediastinum. The hand was easily passed along the course of the large venous trunks to the right side of the neck, the whole of which track was stuffed with coagula of blood. There was a large pouch situated deep in the neck and by the side of the vertebræ, which was also full of clotted blood.

The pericardium, heart, and great vessels of the chest, appeared to be entire. The wounded vessel was not discovered. It is probable, however, that it was but of small size, or the patient would not have survived so long.

The suddenness of this man's death suggested an examination of the spine. Three of the spinous processes of the upper dorsal vertebræ were fractured, but the vertebral canal was entire.

The fracture of the sternum has ever been considered as an injury attended with the greatest danger; insomuch that some have ranked it as next in importance to injuries of the brain and spinal marrow. That such an opinion should have at all times obtained is by no means extraordinary, when the situation, connexion, and office of this bone are considered.

The connexion of this bone with the ribs through the medium of the elastic cartilages, affords to it not only a means of support, but also of defence. "The sternum stands so much exposed that, did we not naturally guard it with our hands, fractures must be very frequent."

Thus it is found that, when this fracture does occur, it has generally been produced by some great force,—as by a cart-wheel or some other heavy body passing over the chest, or by

some means equally violent. It is more than probable, then, that the danger attending the fracture of the sternum arises, in a great measure, from the causes by which it is so often produced; by which means the important viscera of the thorax become so much injured as to render this fracture very frequently fatal. And it is not from the supervention of inflammation that the patient generally dies, for over this we have some control; but it is from the immediate effects of the accident—the internal hemorrhage.

IX. *Case of Dislocation of the Ribs from their Cartilages.*  
Treated by Mr. BELL.

John Bean, aged seventy-two, was admitted on the 4th of June, 1826, a month after the occurrence of the accident, which happened in the following way:

He had been standing up in his cart whilst driving it down a hill; an inequality in the road producing a sudden jerk, threw him forwards, and he fell with his breast on the shaft, striking the fore part of the chest with much violence. So great was the injury thus produced, that it was found necessary to have him conveyed to his home, where he was attended by a surgeon, who bled him, and applied a bandage to the thorax. Directions were given that he should be kept in a state of perfect quietude; and, from his own account, the injury appears to have been followed by no unfavourable symptoms.

It was now found that the sternum, and all the cartilages of the ribs, have been forced in upon the cavity of the thorax, and that a dislocation, or rather a diastasis, of these cartilages from their ribs has been the consequence.

The whole contour of the chest presented a most extraordinary appearance, but to the touch it conveyed a well-known sensation. We recognised something at once familiar: we know not how to describe it better, or how to furnish an illustration more applicable, than that given by Mr. Bell in a similar case, in his "*Clinical Surgery*."\* He says that "his chest was like that of a dead body in which the thorax had been opened, and the sternum left loose under the integuments; for, on both sides, the end of each rib, at its junction with the cartilage, stood out distinctly marked and prominent."

The sternum and its cartilages still remain moveable, and produce (according to his own expression) a great weakness of the chest: this and his long confinement to bed have rendered him extremely feeble, and are the reasons why he seeks relief at this hospital.

He has a slight difficulty in breathing and a tickling cough, but there is no pain in the chest. The bowels are free, and the tongue is clean.

He is to take a Demulcent Draught, with fifteen minims of the Compound Tincture of Camphor; and the chest is to be swathed with a bandage.

He progressively improved. The sternum and cartilages of the ribs remained depressed, but their attachments to the ribs became more firm. He was discharged on the 18th of July, having received much benefit.

Mr. Bell, in his clinical lecture, after admiring the powers of nature displayed in this and some cases of a similar kind, remarked on the necessity of confining the chest by bandage, to restrain the motion of the fractured bones, that, although in most cases no bad consequences resulted from the neglect of bandaging, yet it gave unspeakable relief, and it prevented caries. He gave an instance where, in consequence of the fracture of three ribs, caries of their extremities had taken place, and suppuration of the pericardium contiguous to these portions of diseased bone.

In speaking of bandaging the chest to suppress the motions of the ribs or sternum, he drew our attention to the case of Norton, (No. 4,) where, in the first attempt to swathe the body, it was attended with intolerable oppression, and yet at an after period it was followed with remarkable relief. Respiration and circulation, he said, were two parts of one function; they must always correspond. If we suppress the action of the ribs, and leave only the diaphragm free, we limit the play of the lungs to one half; and if, while we thus impede the action of the lungs, the heart and arteries remain full of blood and active, the patient becomes suffocated! But when we have bled him, and have reduced the activity of the circulating system, we may then limit the motions of the chest. We observe then, he said, the necessary connexion betwixt the application of the roller on the chest and the use of the lancet. Without attention to this, the unfortunate man is left to unutterable agony,—perhaps to suffocation. In these cases we bleed for two reasons: first, to avoid inflammation; and secondly, to permit the thorax to be bound.

*X. Case of Wound of the Lungs, which was followed by extensive Suppuration. Treated by Mr. BELL.*

Thomas Hyde, aged seventeen, admitted October 28th, 1826. This lad, about twelve weeks ago, fell from the top of a wheat-stack, twenty feet high, upon a wooden paling, one of the sharp staves of which was forced in behind the right clavicle, and entered the upper part of the chest. A piece of wood, five inches in length and one and a half in breadth, was broken off abruptly in the wound, where it remained until the assistance of Mr. Brown, of Epsom, was procured, who found it necessary to employ

considerable force to extract the splinter. The wound made by it readily admitted of the introduction of three fingers, which might be passed their whole length into the chest. Much air and blood escaped. As soon as the bleeding ceased, the edges of the wound were retained in contact by adhesive straps. His breathing was very difficult, insomuch that it was found necessary to bleed him twice the first night. He was bled the three following days, and the antiphlogistic treatment was followed up in all its details. This had the effect of preventing the occurrence of high inflammatory action; but adhesion in the external wound did not take place.

In eight or nine days the respiration became much easier; and, about the twelfth day after the accident, as his mother informed us, "the breath ceased to come through the wound;" since which time large quantities of very offensive pus have been discharged through the wound, the quantity of matter discharged frequently amounting to half a pint daily. About the third week he began to cough: this cough has latterly become very troublesome, and has been accompanied by much expectoration.

He is now extremely emaciated, and resembles a person in the last stage of pulmonary phthisis, although previously to the accident he was a stout and healthy lad. He can however stand, and even walk a few steps without assistance: this he could not do three weeks ago; indeed, he was then so weak as to be unable to sit up in bed. This improvement his mother attributes to a change in his diet; for latterly he has been allowed nourishing food, as eggs, &c. and occasionally a mutton-chop.

There is at present but little discharge from the wound: it has been gradually diminishing in quantity for the last fortnight. The pus, however, which is discharged is of a scrofulous character. He has a troublesome cough, and he expectorates a yellow mucus, mixed with pus. Pulse 111, small and weak. He had a diarrhoea a week ago, and he has been subject to profuse perspirations at night. These unfavourable symptoms have now subsided.

The right side of the chest measures an inch less in circumference than the left. The spinous processes of the middle dorsal vertebrae incline towards the left side, and might lead to the idea of there being a lateral curvature dependent upon the disease of the chest, as described by LAENNEC; but it appears to be rather an irregular formation or disposition of the spinous processes.

Mediate auscultation discovers that the respiration is entirely deficient in the upper and anterior part of the right side of the chest, in the neighbourhood of the wound. It is extremely indistinct in the lower and anterior part of the same side; but the respiratory sound is very perceptible in the posterior part of the cavity, although it is even here less distinct than on the opposite side. The heart pulsates strongly, and its apex is situated more to the left side than usual.

He is to take the following draught three or four times a-day:—Inf. Lini ʒ ij.; Træ. Opii Camp. ʒ ss.; Vin. Ipecac. gtt. xx.—His diet is to consist of

light but nutritious food, avoiding at the same time all such things as may prove stimulating.

November 13th.—Continues to improve. His expectoration becomes less puriform in appearance, and is much diminished in quantity; his cough is not so troublesome, and his sleep is consequently less disturbed. The wound is healed.

23d.—This patient may now be regarded as convalescent; should any unfavourable change occur we shall mention it in a future number.

### FEVER.

*Some Cases of Fever, treated upon the Principles lately explained by Dr. C. HEWETT, Physician to St. GEORGE'S HOSPITAL.*

CASE I. *Fever, with Pulmonary Inflammation.*—Brian Flaherty, ætatis twenty-seven, was admitted into St. George's Hospital, July 24th, 1826. He has been ailing for the last six weeks, with slight cough and rheumatic pains; for the last three days he has had giddiness, headache, and other symptoms of fever. This morning he has been shaking with cold, but the skin is now pungently hot and dry. Any attempt to take a full inspiration excites cough, and pain in the left side of the chest: the latter is said to be felt only now and then, and does not prevent him from lying upon the left side; the cough, which was previously moist, has latterly become quite dry. The eyes are watery and suffused; pulse is 116, and not corresponding in strength with the temporal arteries, which are pulsating strongly; tongue is coated with a dry yellow-brown fur; bowels are costive.

Fiat VS. statim ad  $\frac{3}{4}$  xiv.—Hydrarg. Submur., Pulv. Jac. veri, aa gr. v.; Mucil. Acaciæ q. s. ut fiant pil. duæ statim sumendæ, et repetendæ horâ somni; post horas duas sumatur H. Sennæ.—H. Salin.; Liq. Antim. Tart. 3ss.; Syrupi 3j. M. fiat haustus quartis horis sumendus.—Rep<sup>r</sup> VS. vesperi ad  $\frac{3}{4}$  xiv. si perstat dolor pectoris.—Diæta Febrilis.

25th, twelve o'clock.—The blood was cupped and slightly buffy: the venesection was not repeated. Bowels have been freely opened; tongue yellowish, brown, and dry; pulse 120, labouring. There has been some scanty expectoration of viscid, blood-streaked, but otherwise transparent, mucus. Inspiration is checked immediately by coughing, but not by pain. He can lie on both sides. Skin is hot and dry. Venesection was immediately repeated, and twenty-eight ounces of blood were taken away before the circulation became weakened. Shortly afterwards, the attempt to take a full inspiration was immediately checked by coughing.

Vesperi, si perstat tussis sicca rep<sup>r</sup> VS.; augeatur dosis Liq. Antim. Tart. ad 3j. in sing. haustu.—Rep<sup>r</sup> pil. hac nocte.

26th.—The blood taken in the morning was very much cupped and buffy; that in the evening (amounting only to eight ounces)

was less so. Expectoration as yesterday; but he can now take a full inspiration, without any interruption by cough. Pulse 100, soft; tongue white and clammy; one evacuation; no nausea; skin still dry.

Rep<sup>r</sup> Haustus Antimon.—Rep<sup>r</sup> pil. horā somni.

Nine o'clock P.M.—Skin is hot and dry; some cough, without pain, but no satisfactory expectoration.

Rep<sup>r</sup> VS. statim ad  $\frac{3}{4}$  x.

27th.—Blood very slightly cupped and buffy. Has had an easier night, but still the expectoration is very scanty and difficult; it is blood-stained, but otherwise transparent. Tongue is moist, skin also is moist; no nausea; no evacuation for the last twenty-four hours.

H. Sennæ statim; postea rep<sup>r</sup> Haustus Antimon. quartis horis, et pil. horā somni.

28th.—No nausea; bowels have been freely opened; skin is moist, but very warm; pulse ninety-six, soft; tongue is again quite dry, and brown in its centre, with yellow clammy edges; inspires fully, without either cough or pain, but still the expectoration is scanty and similar to that of yesterday.

Hydrargyri Submur., Ext. Coni, aa gr. iij. M. fiat pil. sextis horis sumend.  
—Rep<sup>r</sup> H. Antimon.

30th.—Some little muco-puriform expectoration; skin moist, and moderately warm; tongue furred and pasty; two evacuations.

Rep<sup>r</sup> medicamenta.

31st.—Last night, for the first time, vomited up the antimonial draught. Skin is natural; tongue moist, but still pasty; gums very slightly affected; some little transparent mucous expectoration.

Rep<sup>r</sup> pil. omni nocte et mane.—Dimin<sup>r</sup> dosis Liq. Antim. Tart. ad  $\frac{3}{4}$  j. in sing. haustu.

August 1st.—Is improving fast.

Omitt<sup>r</sup> pilulæ et Haust. Antimon.—Acid. Sulph. dil. m. xv.; Syr. Tolutani, Mucilag. Acaciæ, aa  $\frac{3}{4}$  j.; Aquæ Cinnam.  $\frac{3}{4}$  j. M. fiat haustus quartis horis sumend.—Sulphatis Magnesiæ  $\frac{3}{4}$  iij. cras mane, nisi interim dejecerit alves.

He went out cured, August 21st.

CASE II. *Fever, with Cerebral Congestion.*—Ann Ryall, aged twenty-three, and single, was deposited at St. George's Hospital, in the evening of the 16th of August, almost in a comatose state, without any further information being left by her friends, than that she had been ill of fever for a week.

A pill of three grains of Calomel, with four grains of James's Powder, was immediately given; and a purgative draught, containing a scruple of Rhubarb, was given early in the morning.

August 17th, twelve o'clock.—She remains almost comatose, and incapable of answering questions. The present symptoms are—dilated pupils, scarcely contracting upon the approach of a

candle; face and arms are flushed with a continuous scarlet efflorescence (not scarlatina) on the latter, but there is no appearance of it on the breast or lower extremities; there is slight superficial excoriation of the soft palate; the tongue is tremulous, dry, and brown; pulse is 120, very soft; abdomen is tumid; pressure upon it seems to excite uneasiness. Has passed a very scanty evacuation, resembling chopped spinach.

Adhibeatur Enema Catharticum statim et rep<sup>t</sup> vesperi, nisi interim plenè soluta fuerit alvus.—Hydrargyri Submuriat., Pulv. Jac. veri, aa gr. iij.; Sacch. albi gr. vj. M. fiat pulvis quartà quaque horà sumendus.—Lotio Spirituosa capiti raso.—Dieta febrilis.

Half-past eight P.M.—Is now able to speak, and says that she has still some headache, but much less than before the cupping. Pulse 108, large, but very soft.

Applic<sup>r</sup> Cuc. cr. nuchæ, et detrah<sup>r</sup> sanguinis 3vij. statim.—Rep<sup>t</sup> pulvis.

18th, twelve o'clock.—The headache is much relieved, but face is still flushed, and the pupils are sluggish in contracting; pulse 108, of less size, but soft; abdomen is still tumid, but is pliant and no longer tender; there have been many copious, liquid, green stools; skin is hot and dry; she complains of great thirst, and the tongue is quite dry and brown.

Rep<sup>t</sup> pulvis.

Nine o'clock P.M.—Pulse 108, soft; face is still flushed.

Rep<sup>t</sup> Cuc. cr. &c. ad 3 vij. statim.

19th.—Bowels have continued acting. Eyes now have their natural appearance, and the skin its natural temperature, but the tongue is still dry and foul. She is now quite rational, and states that she has still some pain just above the right ear. The gums are becoming slightly tumid.

Omit<sup>r</sup> pulvis.—Haust. Salinus; Liq. Antim. Tart. 3 ss.; Syrupi 3j. M. fiat haust. quartis horis sumendus.

20th, twelve o'clock.—Has had several liquid, dark-green evacuations during the night. Skin is warm and moist, but tongue is dry and brown; pulse 103, soft; the gums are slightly sore. She still complains of pain in the head.

Olei Ricini 3 iij. statim sumendæ.—Rep<sup>t</sup> Haust. Antimon.

Eight o'clock P.M.—The pain in the head continues.

Detrah<sup>r</sup> nuchâ sanguinis 3 x. statim ope Cuc. cr.

21st.—Head is less painful.

Rep<sup>t</sup> Haust. Antimon.

23d.—The forehead feels hot, and the face is flushed; she complains of "great heat in the head;" the pulse is 108, and soft; tongue is cracked and furred in its centre, with red edges; the eruption is no longer observable; the evacuations have continued very dark-coloured and offensive.

Hydrargyri Submur. gr. v.; Pulv. rad. Jalapæ, Scammoneæ in pulvere, aa gr. vj.; Mucil. Acaciæ q. s. ut M. fiant pilulæ tres statim sumendæ.—Rep<sup>t</sup> Haust. Antimon.

24th.—Five dark-brown evacuations. Skin moderately warm,



but there is still some pain in the head; pulse 108, very small and soft.

Olei Ricini ʒ iij. statim.—Rep<sup>r</sup> Haust. Antimon.

25th.—Six similar evacuations. Head is easier.

Olei Ricini ʒ iij. statim.—Rep<sup>r</sup> Haust. Antimon.

26th.—The bowels acted frequently during the night, but the evacuations are now well coloured. Skin is of natural temperature; the scarlet efflorescence is again visible about the neck and face; tongue is quite moist and clean, but deeply fissured; pulse is very frequent.

Sulphatis Quinæ gr. ij. in formâ pilulæ quater die sumendæ. Superbibat haustum sequentum.—Acid. Sulph. dil. m. viij.; Syrupi Aurantii ʒj.; Mist. Camphoræ ʒxj. M.—Omittantur alia medicamenta.

27th.—Appetite has returned. One liquid but well-coloured evacuation.

Rep<sup>r</sup> Pilulæ et Haustua.

September 2d.—P. cum Sulphatis Quinæ gr. iij. in sing. pilulâ.—Vin. alb. ʒ ij. quotidie ex aqua.

Under the continuance of this treatment she gradually recovered, and left the hospital September 26th.

In the first case, about three days after the invasion of the fever, the pulmonary affection, which previously was only a slight catarrh, was kindled up, by the febrile irritation, into an inflammation requiring the immediate adoption of depletory measures.

The progress of the case shows that copious and repeated venesection, though aided by powerful purgatives, and subsequently by considerable doses of tartarised antimony, failed to relieve the lungs from their inflammatory state, until the capillary vessels were brought under the control of mercury.

The most beautiful and convincing illustration of this power of mercury, when aided by venesection, to control the action of the capillary arteries, and thus subdue acute inflammation, is exhibited in inflammation of the iris, the transparency of the cornea affording the opportunity of witnessing not only the previous extent of the disorganising effects of the inflammation, but also each step in the progress of the counteracting influence of the remedy.

As soon as the mercury begins to affect the system, the progress of the inflammation is arrested,—the increased vascularity of the iris fades away,—the fine capillary vessels, resuming their natural size, cease to pour forth coagulable lymph; while that which had been previously effused is gradually absorbed, leaving the anterior chamber of the eye perfectly clear, and the iris in the full exercise of its proper functions,—provided that this remedy has been employed

before the inflammation has produced any irreparable disorganisation of the part.

The observation of these facts naturally led the way to an earlier and a bolder administration of this remedy, in the treatment of acute inflammations of the internal viscera; for it seemed reasonable (due allowance having been made for the modifications produced in the progress and effects of inflammation by the variety of the structure inflamed,) to infer that the capillary vessels would be equally obedient in internal inflammations, as they had been seen to be in iritis, to the controlling influence of mercury.

Some interesting illustrations of these views may be found in Dr. FARRE's Preface to the second edition of SAUNDERS on Diseases of the Eye, (p. 38, 39;) and also in a short but very able paper on Iritis, by Mr. TRAVERS.

Further confirmations of the efficacy of mercury in subduing inflammation, are afforded by the various authors who recommend its exhibition in croup, hydrocephalus acutus, hepatitis, laryngitis, &c. &c.

In the same case it may be remarked that, during the exhibition of the tartarised antimony, half-grain doses did not produce vomiting, until there was some diminution of the inflammatory affection of the lungs. This is quite in accordance with the doctrine of the *Controstimolo* of the Italian practitioners, who maintain (and I believe most justly) that the impression made by a given quantity of any of this class of medicines on the system, varies inversely as the intensity of the existing inflammation: in order, therefore, to derive any considerable benefit from their exhibition, it is obviously necessary that the dose should be increased in proportion to the supposed activity of the inflammation. The capability of the patient to endure such a dose without experiencing nausea or vomiting, may, in some degree, serve as a test of the intensity of the inflammation.

In the second case, the appearance of the evacuations, resembling chopped spinach, and the comatose condition of the patient, indicating congestion of the brain, clearly demanded the free administration of purgatives; but it is probable that, if they had been continued beyond the 24th of August, the irritation produced in the intestines by their protracted use would have caused a continuance of unhealthy evacuations; which, however, under the use of mild doses of castor-oil, soon presented a healthy aspect,

October 24th, 1826.

## AMENORRHOEA.

*Cases of Amenorrhœa, treated with the Ammoniated Tincture of Guaiacum.* By GEORGE JEWEL, Surgeon to the MIDDLESEX INFIRMARY.

THERE are no cases, when protracted, more obstinate, and none which occasion greater apprehensions on the part of the patient and her friends, than those of amenorrhœa; and, notwithstanding the usual and necessarily diversified means of cure which are commonly employed, they too frequently terminate, after a long series of varied and distressing symptoms, in the death of the patient, either from actual disease of some portion of the uterine system, or other more distant but important organ. I have been induced to publish a statement of the following cases, in the treatment of which I have been successful, as the medicine employed, (the ammoniated tincture of guaiacum,) is not, in my opinion, appreciated so highly as its properties seem to demand; a circumstance probably arising from its not having received so much attention, as an emenagogue, in this country as in some others. In the administration of this medicine, it is but justice to state that I have experienced that which in common we experience from all—occasional disappointment: at the same time, I conceive there is no medicine whose effects are more certain, provided the catamenial suppression does not exist as the consequence of any organic disease. Much, however, will depend upon the existing state of the system; for, as the qualities of the medicine are highly stimulating, it is of importance that the circulation should previously be brought down rather below the natural standard.

Catharine A—, a widow, ætatis thirty, was admitted a patient at the Middlesex Infirmary, Great Pulteney-street, on the 24th of June, having had a suppression of the catamenia during fourteen months. Her general leucophlegmatic appearance indicated great torpor of the whole system, and considerable derangement of the digestive functions. Appetite impaired; furred tongue; alvine evacuations irregular; respiration hurried, and palpitation of the heart upon the slightest exertion. Her legs and feet were cedematous, and she complained of occasional headache. The pulse, notwithstanding these indications of debility, was by no means feeble, but, on the contrary, rather full, accelerated, and quick. She was ordered to refrain from all spirituous and malt liquors, to live on a spare vegetable diet, and take as much exercise as the system could sustain without fatigue. A tea-spoonful of the *Tinctura Guaiaci Ammoniata* was ordered to be taken morning and evening, in a tea-cupful of sweetened milk; and the bowels to be kept open by a laxative pill of Colocynth and Gamboge.

After a fortnight's perseverance in this plan, the patient having experienced little or no relief, another tea-spoonful was taken in the day; and it was strongly impressed upon her mind that she was not to anticipate a cure without perseverance.

At the expiration of six weeks, a most extraordinary alteration was produced in her general health: her cheeks had now a healthy colour; her appetite had returned; the swelling of her legs had subsided, and the catamenial secretion had reappeared. She was discharged in perfect health on the 27th of August.

It is worthy of remark, that this case had not only been considered one of peculiar obstinacy, but almost hopeless, as she had consulted a variety of practitioners, and had taken steel to an immense extent. On calculating the quantity of the ammoniated tincture of guaiacum which this patient had taken from the commencement to the termination of her illness, I find that it must have exceeded twelve ounces.

II.—On the 14th of October, 1825, I was requested to visit Miss C—, a young lady, nineteen years of age, residing a short distance from town. In this case the catamenia had been suppressed four periods; the system appeared to have suffered materially; and she had been troubled a good deal with cough and occasional expectoration, symptoms which were viewed as presaging a fatal termination, there being an hereditary phthisis in the family. The functions of digestion were much impaired, with anorexia, and extreme languor of the circulation.

After evacuating the primæ viæ with rhubarb and the submuriate of mercury, repeated at intervals of two or three days, pills containing steel and myrrh were ordered, which she regularly took during five weeks, without the slightest visible amendment in the general health, and without restoring the uterine function. I then prescribed the Ammoniated Tincture of Guaiacum, in the usual manner; which medicine she steadily persevered in, with an occasional purgative, for about six weeks, when the catamenial secretion reappeared: the system immediately recruited its lost vigour, the cough gradually subsided, and she has ever since enjoyed perfect health and strength.

III.—A girl, ætatis fifteen, the daughter of a poor woman residing in Wellington Mews, Windmill-street, was brought as a patient to the Middlesex Infirmary, on the 16th of May, 1826. She had never menstruated, and complained of severe headache, resulting from a determination to the cerebral vessels, pains in the limbs, and constipation of the bowels. She was bled to the extent of eight ounces, and ordered to live on spare diet; to use regular exercise; and to take pills of the Extract of Colocynth and Calomel pro re nata.

After this plan had succeeded in reducing the system to a pro-

per standard, the Pil. Ferri cum Myrrh. was ordered, which she continued to take some time, but, as in the former case, without producing the effect desired. She then commenced the use of the Ammoniated Tincture of Guaiacum, which in about three weeks completely succeeded in stimulating the uterine system to its proper and healthy function.\*

#### NEURALGIA.

*Case of severe Neuralgic Affection, cured by Carbonate of Iron.*

THE following is a copy of a letter from Dr. JAQUES, of Harrowgate, to Mr. HUTCHINSON, of Southwell.

I have been favoured with your letter, and shall be happy to give you every information in my power respecting Mr. C. M.'s case.

I was consulted by him on the 30th of July in the present year. I found him confined to his bed by a violent pain in his head. Upon questioning him very minutely about the nature of his complaint, and the symptoms attending it, he gave me the following account, as near as I can recollect:—The disease he was then suffering from he had laboured under for more than seven years. It generally commenced its attack by a violent pain in the left temple, which remained frequently for twenty-four hours, and then passed over the head into the right temple: the pain often remained three days and nights, with very great violence,—sometimes only a few hours. It left him suddenly, and he was then quite well. He was of a very spare habit of body, and of great delicacy of constitution. The medical gentleman he consulted at Belfast bled, blistered, cupped, and leeches him, and kept him on very low diet; from which treatment he derived no benefit. He went to Dublin about seven years since, and consulted Dr. PERCIVAL, under whose care he remained some time: he at last candidly told him he could not prescribe any thing likely to relieve him, and with equal candour announced to his patient the probability of a fatal issue. He took the advice of several other medical gentlemen: various medicines were tried,—mercury, camphor, opium, internally and externally. Arsenic was the only medicine that ever had any effect, and it certainly did arrest it for a very short time. One gentleman had prescribed iron, but in very small doses, which gave no relief. He then went to Edinburgh, where he consulted Dr. THOMPSON, who was of opinion that tape-worm was the cause, and gave him large doses of turpentine; from which not deriving the smallest benefit, he desired him to come to this place. He made

\* We have employed the Ammoniated Tincture of Guaiacum frequently, during the last two years, in cases of amenorrhœa unattended with inflammatory symptoms, and in general with very satisfactory results.—EDITOR.

a trial of the water for some time, but obtained no relief; and he consequently consulted me on the 30th of July.

I immediately, having your excellent plan in view, ordered him twenty grains of the Subcarbonate of Iron three times a-day, and gradually increased the dose. On the 20th of August he took fifty grains three times a-day, in which he persevered so long as he remained here: at the same time, he drank five half-pints of the chalybeate water every day.

Mr. C. M. never had a return of the complaint after the first five days. When he left us, he had been quite well more than a month, and before this period he never enjoyed an intermission of more than a very few days. His brother, who remained here, had a letter from him, saying that, in returning home, he had been up two nights travelling, but had suffered nothing from his complaint. His strength was also much improved, and he was able to go through more fatigue than he was capable of before.

Two days ago I received a letter from my patient, from which the following is an extract:—

“In compliance with your desire, so kindly expressed, that I should write to acquaint you with the state of my health, I have the great pleasure of saying that, since I had the benefit of your aid at Harrowgate, I have (thank God!) enjoyed an almost entire freedom from pain; and have progressively increased in weight and strength since I had the pleasure of seeing you. My brother, on his return, informed me I should discontinue taking the iron: this I think had a very good effect; and since that time I have not tasted medicine of any sort. My friends here (medical included) consider my recovery almost miraculous.”

I suppose you never saw a stronger instance of the value of your discovery. The length of time, exceeding seven years,—the violence of the attacks,—the variety and inutility of the medicines administered, and also the great number of eminent men he had in vain consulted,—all conspire to confirm, on the most solid basis of experience, the very great powers of the remedy which you have so laudably pointed out.

## CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim  
 illa, prius, cretâ; mox hæc, carbone, notamus.—PERSIUS.

*Medical Essays.*—*Essay first, on the Effects of Intestinal Irritation. Essay second, on some Effects of Loss of Blood. Essay third, on Exhaustion and Sinking from various Causes.* By MARSHALL HALL, M.D. F.R.S.E.; Physician to the General Dispensary near Nottingham.—8vo. pp. 96. Longman and Co. London.

THE name of Dr. MARSHALL HALL, who has so considerably increased our stock of useful knowledge on various subjects, will ensure the attention of our readers to whatever proceeds from his pen. With the modesty which generally accompanies talent, the present interesting essays are presented to us as "mere sketches, requiring to be filled up;" and the author "hopes to be assisted by the observations and commentaries of others, which he earnestly solicits."

The first Essay is "on some of the Effects of Intestinal Irritation." In the opinion of Dr. Hall, there are some of these effects, of an acute and alarming character, which are not understood in practice, nor discriminated from other morbid affections of a totally different nature. In many instances, we are told that the case resembles acute phrenitis; and it is this form of the disorder to which the attention of the profession is particularly directed. "In other instances, the affection has assumed the character of inflammation of the intestines or peritoneum. Occasionally the seat and kind of pain have led to the suspicion of pleuritis, or attacks of palpitation have suggested the idea of disease of the heart." Sometimes two or more of these affections take their rise in succession; the first or second probably ceasing entirely before the subsequent attack is established. Thus an erroneous idea is frequently entertained of the *metastasis* of inflammation, or other morbid action, from one organ to another. To illustrate more clearly the precise nature and deceitful character of this wandering irritation, a case is detailed "from one of the most respectable journals of the day," which was regarded "by its intelligent author, and apparently by the editor, as affording an example of migratory inflammation, or metastasis." The writer of the paper referred to is unknown to us, but he deserves honourable mention for the liberal feelings which induced him to permit the republication of it

by Dr. Hall, who was avowedly opposed to the views that had been taken of the nature of the disease. We are aware of the difficulty of forming correct notions of cases which have not fallen under our own observation, however accurately they may be described; but, from mature consideration of the case commented upon, we think that we should not ourselves have carried the depletory system to such an extent.

Dr. Hall proceeds to state in detail the principal circumstances relative to the causes, symptoms, diagnosis, history, and treatment of this morbid affection; interspersing a few cases in illustration, in such a manner as to convey an idea of the gradual formation of his opinions.

*"The Causes.*—The principal cause of this morbid affection is a state of intestinal irritation of some duration, arising from a loaded condition of the bowels, or from a scybalous or disordered condition of their contents. But, although the presence of this cause appears essential to the production of the complaint, it is important to remark that I do not remember to have observed any example of it arising quite spontaneously from this cause *alone*. In every case there has been some superadded cause,—some shock sustained, or some extraordinary effort made on the part of the constitution, to rouse the dormant irritation into effect. Unusual fatigue, exertion, loss of rest, anxiety, or alarm,—a fall, or similar accident,—exposure to wet or cold,—any cause of weakness, and especially of exhaustion,—and particularly the combination of some of these circumstances always attendant on parturition, are the principal exciting causes of this affection. The patient has, in many instances, been subject to indigestion; and he is particularly liable to experience returns of the affection, in the same or some other form, until the primary disorder, and the consequent debility, be finally removed."

*"The Symptoms.*—This affection generally begins in the manner of a sudden attack. This attack is usually ushered in by rigor,—indeed by a more distinct and decided rigor than is observed in many cases of inflammation: the rigor is usually soon followed by much heat of surface; with the heat, the patient experiences some affection of the head, chest, or abdomen, and indeed, more or less, of all. There are vertigo on raising the head, pain, and some morbid impression on the mind,—panting in the breathing, and fluttering about the heart,—with general hurry, irritability, and restlessness; the tongue is white and loaded; the alvine evacuations are morbid, dark-coloured, fetid, and scybalous, or yellow like the yolk of egg, or of the appearance of yeast; the urine is turbid, and frequently deposits a copious sediment."

(P. 7.)

To afford a more precise sketch of the symptoms of this affection, six cases are detailed.



With regard to *diagnosis*, the cases given are considered sufficient to establish the fact that there are attacks which resemble inflammation of the head, chest, or abdomen, and yet which are totally different in their nature. The author first observes, that—

“ The attack from intestinal irritation is, in general, more sudden than that of inflammation, which is generally formed somewhat more gradually. This circumstance must, therefore, be cautiously inquired into, and may assist the diagnosis.

“ I believe, too, that the seizure in the former case is attended by more distinct rigor, and afterwards by greater heat, than in the latter.

“ The case of intestinal irritation affects, in a marked degree, more organs at once than that of inflammation, which is usually confined, at first at least, to one.

“ The state of the tongue, and the condition of the alvine evacuations, are far more marked by disorder, and the latter are far more offensive, in attacks from intestinal irritation, than in cases of inflammation.

“ The affection of the *head* from intestinal irritation comes on suddenly, is formed all at once, and is attended by great restlessness, suffering, and distress. In phrenitis, the disease is usually formed somewhat more gradually: the patient has been subject to pain in the head, perhaps, for some days, or even longer; he complains less, or at least there is less urgent distress,—less distress of a general kind; the pain may be very severe, although it is more frequently rather obscure; the intolerance of light and sound is less urgent; the rigor and subsequent heat, and the attack in general, are less marked; the patient is not so soon relieved by remedies; and the tongue and alvine evacuations are less morbid. In the attack of affection of the head from intestinal irritation, the patient is relieved, perhaps completely, if the lancet be employed, but the attack soon recurs with equal or greater violence: in phrenitis, the relief is seldom so complete, the interval of ease so long, or the return so marked; the pain is diminished, perhaps, but gradually resumes its former violence, unless active measures be interposed.

“ When the *chest* is affected from intestinal irritation, the pain is severe and acute, and increased by a full inspiration; if the inspiration be repeated, however, a second and a third time, the increase of the pain is less and less. The situation of the pain varies; there is no cough, and no crepitus on making a full expiration. In all these respects the case differs from inflammation. The remarks already made respecting the relief from remedies, the tendency to a sudden recurrence of the pain, &c. in cases of affection of the head, apply equally here.

“ I had long remarked that there might be both acute pain and tenderness under pressure of the abdomen, without inflammation;

this state of things is frequently the result of intestinal irritation. It is distinguished from inflammation by the general symptoms of this affection, the mode of attack, the effects of remedies. In inflammation, the surface is usually cool, the head unaffected, the patient remarkably quiet: in the case of intestinal irritation, on the contrary, there is generally much heat after rigor, the head is much affected, and the patient is restless and generally distressed; the tongue is loaded, and perhaps swollen; the alvine evacuations are extremely morbid, and great relief is obtained by the free operation of medicine." (P. 24.)

The mode of *treatment* comprises the full evacuation of the bowels, soothing by anodynes, light nourishment, and certain local remedies. "If (says the author) our diagnosis was early and certain, *perhaps* the lancet would never be required." There are two reasons which induce him to think this remedy ought not to be discarded entirely, even in cases of intestinal irritation. First, that which was originally irritation merely, may doubtless lead to a state of inflammation; the presence of much morbid fæces in the bowels may not only irritate and induce pain of that and of some remote part, but, if long continued, may eventually give rise to inflammation, and the lancet may be requisite as a *preventive*, if not as a cure. This observation applies especially to the attack of pain and tenderness in the abdomen; and much less so, our author thinks, to the affection of the head. Secondly, in the case of intestinal irritation, the diagnosis may not, until the symptoms of the affection be still further studied, be such as to remove all doubt as to the nature of the disease. It will then be prudent to bleed, for the sake of safety, whilst we enforce the other and more specific modes of treatment. After the bowels have been freely opened, the symptoms may still continue, partly from irritation produced by the purgatives, and partly from the lowness and exhaustion induced. To remove these effects, a draught of Træ. Opii and Spiritus Ammon. Arom., and light fluid nourishment, are recommended. "The local applications are, chiefly, a cold lotion applied to the head, a liniment to the chest, and a fomentation and liniment applied to the abdomen, when the pain occupies one or other of these parts."

Dr. Hall reserves it for future opportunities to pursue this interesting investigation. He candidly acknowledges that an accurate diagnosis is still required; and, indeed, every practitioner must be fully aware of the great difficulty which not unfrequently exists in distinguishing mere irritation, from whatever cause it may proceed, from actual inflammation. If we were called to a patient who, as in the

sixth case given by Dr. Hall, "had lost nearly a gallon of blood," in whom the pain, having ceased in the part originally attacked, returned again with violence, "but moved to the right breast, and afterwards to the back," and whose motions were dark and fetid, we should certainly think the lancet had already had a fair trial, and adopt the method he judiciously advises,—viz. the combination of purgatives and sedatives. Where, however, there is a doubt as to the precise nature of the attack, (and doubts there will frequently be,) we would earnestly caution the practitioner against the dangerous error of endeavouring to relieve the local pain by the administration of opiates, to the exclusion of blood-letting; a method by which the disease is too apt to be masked, without being overcome.

The second Essay, "on some Effects of Loss of Blood," is reprinted from the Transactions of the Medical and Chirurgical Society, and has been noticed in a previous Number: it merits attentive consideration.

The third treats of "Sinking and Exhaustion from various causes." This subject, like those which precede it, has, in the opinion of our author, been too much neglected by medical writers. Some interesting observations on it have been made by JOHN HUNTER\* and Sir H. HALFORD,† which are frequently referred to by Dr. Hall.

Our author considers sinking and exhaustion in relation, first, to early infancy; secondly, to old age; thirdly, to several diseases; and fourthly, to certain causes of exhaustion.

In early infancy, it is well known that exhaustion is very apt to be induced, and, "as the reaction is feeble at this period of life, the case soon assumes the character of sinking." Dr. Hall has "frequently been consulted when the original disease has been subdued, and the chief complaint of the little sufferer was a state of exhaustion, which a truce from remedies and medicine, and a proper supply of nourishment, and perhaps stimulants, have removed." This fact ought undoubtedly to be firmly impressed upon the minds of practitioners; and with this view we have adverted to it upon more than one occasion. Nothing, we are convinced, is more common, with inexperienced men, than to bleed and purge a child for the purpose of relieving a train of symptoms which is produced by the exhausting effects of these very remedies.

"When (says Dr. Hall) a child has been rather long ill, when active remedies have been employed, when the form of the disease has perhaps changed in some degree, and paleness of the cheeks

\* Treatise on Inflammation, Part II. chap. ix. sect. 3.

† Transactions of the College of Physicians, vol. iv. p. 316, and vol. vi. p. 398.

is attended with irritability and restlessness, we should carefully consider whether the symptoms are not those of exhaustion. I am persuaded that, by relinquishing all lowering remedies, and adopting a cordial and soothing plan of treatment, I have seen some children recover, who would soon have sunk under the continuance of remedies calculated to subdue a supposed state of inflammation within the head, chest, or abdomen. In these cases, the idea that the original disease and the remedies had worn out the little patient, and led to a state of exhaustion, had apparently never occurred to the practitioner. It is impossible to do justice to this subject in a short section of a short essay; but I am persuaded that the hints here offered will, if carefully considered and cautiously acted upon, be of great assistance to the young physician in his treatment of some of the diseases of infants." (P. 75.)

In old age, as in infancy, the state of sinking may supervene, unaccompanied by symptoms of reaction: it is this state which has been described with so much accuracy by Sir H. Hallford. The state of sinking in certain diseases is thus described:

"Some diseases are apt to issue, even at a rather early period, in a state of sinking; in other cases, sinking supervenes in the later stages of these diseases. This state seems sometimes to be the result of a direct influence of the disease in lowering the vital powers; sometimes the disease has subsided, but the state of sinking has continued and destroyed the patient; and sometimes the sinking has appeared to annihilate the morbid actions which constituted the disease, and thus to prove a cure, though a fatal one. In the latter cases, the physician, whose eye is fixed on the disease alone, and the friends of the dying patient, are apt, from the apparent truce in the actions or pains of the disease, to be led into a sanguine, though delusive, hope that the patient is better: there is, perhaps, a degree of dozing, mistaken for a long wished-for sleep; or some painful sensation has subsided, and the patient expresses himself as easier." (P. 82.)

The diseases in which the state of sinking becomes most marked, according to Dr. Hall, are typhus fever, enteritis, dysentery, and cholera. We have seen several cases of enteritis, in which, all the symptoms of the disease having subsided, and the patients have died suddenly, without mortification of any part of the bowels, or any other appearance explanatory of the phenomenon being detected on examination. It is invariably the rule of Sir H. Hallford "still to consider the patient's life as in jeopardy until the intestines shall have performed their functions again, all irritation having left the stomach, and the skin remaining universally and equally warm."—Dr. Hall makes the following important observation connected with this subject:

"The state of sinking has not, I am persuaded, been distinguished from those forms of disease which have lately been more particularly attended to, and denominated *congestive*; yet the diagnosis is of the utmost moment, for, under the idea of congestion, the lancet has sometimes been used when stimuli were required to obviate a state of exhaustion or sinking." (P. 90.)

LAENNEC frequently refers to this state of sinking in cases of pneumonia. He remarks, that death is often caused more from the sinking of the vital principle than from the intensity or extent of the local affection.

In two cases of puerperal affection of the abdomen, mentioned by Dr. Hall, the patients sank rapidly. On examination, no morbid appearances whatever were found in either.

Dr. Hall concludes the volume with a few lines upon the subject of exhaustion from protracted lactation and profuse leucorrhœa. He believes that the former frequently gives rise to the latter; and that protracted lactation induces cough, with expectoration and wasting, leading to a particular form of consumption, of which he purposes to publish an account hereafter. We have seen several well-marked cases of this nature; but we refrain from dwelling particularly on the subject until we have the advantage of Dr. Hall's opinions in a more detailed form.

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*Répertoire général d'Anatomie et de Physiologie, Pathologiques, et de Clinique Chirurgicale; ou, Recueil de Mémoires et d'Observations sur la Chirurgie, et sur l'Anatomie et la Physiologie, considérées dans les tissus sains et les tissus malades. No. II.*  
—Paris, 1826.

IN our July Number, we gave an abstract of the most interesting communications contained in the first part of this new French periodical, and we promised at the same time to bestow as much attention upon each succeeding part as the importance of its contents, and the known ability of the contributors, might appear to demand.

The first article of the Number before us is by M. A. RAIKEM, M.D. &c. The subject of it is one to which the French pathologists have lately paid very considerable attention—viz. *Inflammation and Softening of the Brain*. The memoir consists of a series of twenty-six cases; of a comparison between them, and of many analogous facts with which experience has furnished the author; of a brief sketch of the softening and hardening of the brain; and, lastly, a *coup d'œil* upon the connexions which exist between injuries of certain parts of the encephalon and the concomitant symptoms. The second case is short, yet interesting.

"A woman, sixty years of age, thin and pale, had been hemiplegic for six months, when she was sent to the Hôpital St. Antoine at Paris. The paralysis was attended by stiffness, and affected the right side. At the end of five months the disabled limbs gradually recovered nearly all their mobility and sensibility. The head was clear, and the intellectual faculties had suffered no remarkable alteration. The patient, however, was not entirely cured: she could not move either with perfect freedom or facility; and in this state she was attacked by a severe continued fever, which was *unaccompanied by any comatose affection or by headache*, but which shortly destroyed her.

"Upon examination, the head presented the following appearances:—The pia mater was infiltrated with serum; the right lateral ventricle contained four or five ounces of limpid fluid. The internal surface of the hemisphere of the brain, at the posterior part, above the cul de sac of the ventricle, was of a yellow colour; and a kind of cavernous ulcer was found in the cortical substance, the bottom of which was formed by a yellow pultaceous matter, similar to thickened pus."

This is one of the many instances upon record in which the appearances detected upon dissection could not have been anticipated by the most watchful attention to the symptoms exhibited during the life of the patient. If the subject of this case had, at the time of her decease, suffered from severe head affection, or if she had been comatose, the above-mentioned morbid appearances would have been regarded, even by the most skilful pathologists, as the cause of those symptoms. The progressive decline of the paralytic symptoms must have led to the belief that no serious mischief was going on in the head.

The third, fourth, fifth, and sixth cases, are instances of paralysis occurring suddenly, and terminating fatally. In each of these cases, fluid was found in the ventricles of the brain. In the third, the substance of the brain was preternaturally hardened. In the other cases, the cerebral mass was much softened in different parts, and a portion of its substance lost by ulceration.

CASE VII.—A countryman, seventy years of age, above the middle stature, with an ample chest, well made and stout, was admitted in the summer of 1809. He had been affected for several months by symptoms which appeared to denote the existence of a passive dilatation of the right cavities of the heart. The face was swollen; the lips of a bluish cast; turgescence of the external jugular veins; long-continued palpitations of the heart, which were manifest at the inferior part of the sternum. The slightest effort caused dyspnoea; the inspirations were very short. The inferior extremities were oedematous. A muscular weakness of the limbs

of the left side gradually took place, in addition to the above symptoms. The head was unaffected; the intellectual faculties undisturbed, and the sensorial functions naturally performed.

At the end of a few days, the patient quitted the hospital at his own desire, but was again admitted during the winter of the same year. At this period the limbs of the left side were soft, flaccid, and motionless, but they still retained their sensibility. The symptoms of organic affection of the heart were now much aggravated. He was also affected with "*une fièvre aiguë, muqueuse, ou gastro-enterique.*" During the last week of his life, he sank into so profound a state of lethargic stupor, that the animal functions appeared to be annihilated.

*Sectio cadaveris.*—The lower part of the inferior lobe of the right hemisphere of the brain contained several ounces of a white puriform liquid. At this part the substance of the brain, to a considerable extent, was hollowed into a cavity, the parietes of which, coated by a condensed purulent matter, were formed by the cerebral tissue, which was softened and pultaceous, very red at some points, and totally disorganised. The other parts of the brain were healthy. All the cavities of the heart, but especially those of the right side, were dilated. The ventricle of that side was large, and the ventriculo-auricular orifice also much enlarged. Several points of ossification on the circumference of the mitral valve, and upon the sigmoid valves of the aorta, were also observed. The small intestines were softer than natural.

The remaining cases principally consist of paralytic affections, accompanied by various trains of symptoms indicative of cerebral disturbance. Upon dissection, in most of them a softened state of some part of the brain was discovered, with serous effusion, or even small collections of matter.

In the twenty-first case, we have a curious instance of folly and credulity in the attendant of a child, labouring under symptoms which clearly indicated the existence of serious affection of the head, but which he mistook for a case of essential fever. He relied with much confidence upon the application of a pigeon divided in two portions, and applied palpitating to the head of the patient. The true nature of the case, and the fatal termination of it, were prognosticated by M. Raikem.

The second part of this memoir, which we presume (from what is said) will contain the results of the author's experience upon the connexion of particular symptoms with affections of particular parts of the brain, will doubtless be interesting, and shall not escape our attention.

The second communication is from M. LOUIS, upon the subject of *Abscesses of the Liver.*

It is presumed that much uncertainty still exists upon the

subject of hepatic diseases, and, even with respect to inflammation of that important organ, many questions still remain to be determined. Some physicians still doubt, says M. Louis, whether abscesses of the liver, which contain laudable pus, can exist in the substance of the viscus, or whether they are situated only upon the surface, between it and the covering membrane. The doubt would long ago have been resolved, in the opinion of the author of the memoir, if sufficient attention had been bestowed upon the examination of all the viscera. Judging from his own experience, abscesses situated in the interior of the liver, and containing laudable pus, are not the least frequent occurrence. Five cases of this description have been detected out of 430 bodies which M. Louis has examined, and these are related in the present paper.

Whatever proceeds from the pen of M. Louis is entitled to our attention, but we are of opinion that, in the present day, no additional proofs are required to demonstrate the fact of the frequent occurrence of abscesses, containing laudable pus, in the internal parts of the liver. The voluminous work of BIANCHI (*Historia Hepatici*), the size of which is in an inverse proportion to the quantity of useful matter it contains, maintains, it is true, a different doctrine. The united experience of the profession, however, has long ago set the subject at rest; and few practitioners of the present day are, we apprehend, even aware that it was ever contended that, if an abscess of the liver terminated favourably, it must necessarily have been confined either to the external surface of the liver, or to the peritoneal covering. It must be evident, however, that an abscess which occurs near or upon the surface, must be less dangerous than one which occupies a deeper seat.

We must pass over the detailed accounts of the cases, which appear to be faithfully described.

The general observations with which M. Louis concludes his paper are highly interesting. None of the patients suffered any pain in the right shoulder, and a doubt is expressed by the author whether this symptom, which is so strongly insisted upon by most writers upon the subject, really belongs to inflammation of the liver. It is suggested that, when it has occurred, there has been some concomitant affection of the lung or of the pleura of the right side, to which it ought to have been referred. Slight derangement of the liver, which is remediable by a purgative and abstinence for a day or two, is frequently the cause of a very painful sensation under the right shoulder. Of this fact we are convinced from the most certain, if not the most satisfactory, proof—*personal experience.*



It is a common opinion that a residence in hot countries favours the occurrence of hepatic disease: by many respectable authorities, however, this doctrine is disputed. It has also been lately asserted that, if hepatitis was not produced by external violence, it was always caused by inflammation of the mucous membrane of the duodenum. M. Louis does not deny that these two affections may exist at the same time, but his cases prove that such is not always the fact. In four of the five post-mortem examinations which he has recorded, the mucous membrane of the duodenum was found perfectly healthy: in the second case, it was a little softened, but without redness. Perhaps, says M. Louis, it may be thought extraordinary that in several cases we should have found the mucous membrane of the stomach and of the small intestines more or less inflamed, while the interjacent part, the duodenum, was unaffected. When, however, the mucous membrane of the stomach is inflamed, the inflammation generally stops at a certain distance from the pylorus; and when the mucous membrane of the small intestine is the seat of inflammation, it ordinarily commences in the portion nearest the cœcum, and rarely extends to the duodenum. The facts, therefore, reported, far from being extraordinary, are merely the expression of a general law.

Wounds of the head have been considered by authors to produce abscesses of the liver. M. Louis participates in the doubts entertained by MORGAGNI upon this subject. The abscesses of the liver which have been examined by M. Louis have generally been encysted. If the membrane lining the cavity of the abscess presented a firm appearance, it was presumed that it had been gradually formed. When the disease had pursued a rapid course, it was soft.

A softened state of the whole viscus is not admitted as a proof of inflammation having existed during life, unless the patient had suffered from the ordinary symptoms of hepatitis, or pus was discovered upon dissection. A softened state of many other organs is not incompatible with health. It is worthy of observation, that cicatrices are never seen in the substance of the liver. This fact is a proof of the danger at all times attending abscesses of this organ.

In four of the five cases related by M. Louis, jaundice existed; but still the biliary ducts transmitted the bile to the small intestines, even in a case in which a calculus of considerable size, arrested in the cystic duct, to a certain degree compressed the hepatic duct. M. Louis, indeed, has in no case been able to detect mechanical obstruction to have been the cause of jaundice.

The next paper is contributed by M. MARX: it relates the successful operation of tying the subclavian artery for aneurism of the left axillary artery, which was performed by Le Baron DUPUYTREN. We gave this case in our Hospital Reports last month.

*Memoir of the Anatomical Characters of Chronic Gastritis.* By M. ANDRAL, fils. Second Part.

In the first part of this communication, which we have noticed in a former Number, the author has particularly described the various alterations which the mucous membrane of the stomach may undergo when it is attacked by inflammation. In this part he treats of the lesions of the other tissues which form the parietes of that viscus.

*On Morbid Invaginations of the Intestines.* By M. DANCE, M.D.

In the first case, there existed invagination of the termination of the small intestine, of the cœcum, of the ascending and transverse colon, into the descending colon, so that the cœcum, which terminated the invagination, was placed in the sigmoid flexure of the colon. Gangrenous perforations were observed upon the parts forming the invagination. Peritonitis took place, and was rapidly fatal. The symptoms under which the patient laboured did not lead to any suspicion of the real nature of the case.

Case II.—Invagination of the small intestine, of the cœcum, and of the ascending colon, into the transverse and descending colon; the cœcum situated in the sigmoid flexure of the colon; disorganisation of the invaginated parts, and secondary peritonitis, which destroyed the patient.

The observations which follow the detailed relation of these cases do not differ, in any essential points, from the statements of other writers upon the same subject. In general, the symptoms which are produced by intestinal invagination are common to many other diseases. M. Dance offers a few observations upon the diagnosis, but he has not succeeded in detecting any symptoms of intus-susception which can relieve us from the difficulty with which we have had previously to contend. We may frequently suspect the existence of the disease, but we fear that a positive opinion can rarely be formed.

*Clinique Chirurgicale of the Hôtel Dieu.* By M. H. ROYER COLLARD.

During the last three months, the operation of lithotomy has been performed five times in this hospital. Four cases

terminated successfully; in two of which the lateral operation was performed by BRESCHET, and in the others DUPUYTREN performed the transverse operation, which has been described in the first Number of the Repertoire. In the fifth and fatal case, the recto-vesical operation was done by M. SANSON, in compliance with an arrangement which (as we mentioned in our September Number) these celebrated surgeons had determined upon, to give a fair trial to each mode of operating. The patient was sixty-five years of age, and of a broken-down constitution. An unsuccessful effort was made to crush the stone in the bladder by "*la méthode lithontriptique*." Considerable irritation was produced by the attempt, from which, however, the patient perfectly recovered before he underwent the final operation, which was performed on the 13th May. The man died on the 13th of June.

M. Royer Collard adds some interesting observations upon the respective advantages and disadvantages of the different operations, as they are now performed at the Hôtel Dieu. In his opinion, the transverse or bilateral operation,\* as it is now performed by M. Dupuytren, is not exempt from the hazards which have been feared from the other modes of operating. It is apprehended, also, that the serious accidents to which it exposes the patient would be frequent, if the operation were performed by any other surgeon than the Baron. The recto-vesical operation, as it is now performed by M. Sanson,† is thought by M. Collard to be the safest, although the patients recover from it more slowly than when the other modes of operating are adopted.

A brief description follows of various instruments which have been proposed by different individuals for the purpose of breaking down the calculus in the bladder, and afterwards extracting it without using the knife. Much ingenuity has certainly been displayed, and many difficulties have been surmounted. Small calculi we know may be removed by gradual dilatation of the urethra; but we have yet to discover the means of extracting stones of considerable size from the bladder, with less hazard and less suffering to the patient than is incurred by the skilful use of the knife.

The last article contains *the description of an apparatus, proposed by M. ROBINET, to dissolve Calculi in the Urinary Bladder*. The difficulties to be overcome are—

\* Vide our Number for September, p. 233 et seq.

† Ibid. p. 237.

1st. To grasp the calculus, and to enclose it in a pouch which is perfectly closed.

2d. To prepare a pouch capable of resisting the action of the liquids which must be employed to dissolve the calculus.

3d. To discover the best solvents for the various species of calculi, the time occupied in the dissolution, and the circumstances most favourable for its occurrence.

Much ingenuity is shown by M. Robinet in the conception of the proposed plan, and in the contrivance of the instruments. The description of the latter would be scarcely intelligible without the plates which are given in the accompanying Atlas, and to which we must refer our surgical readers. We hope that, upon trial, the plan may be found successful, but we fear it will not. Presuming even that a solvent is known which *will* act upon the calculus, and which will *not* act upon the pouch which contains it, we do not clearly understand by what means the operator is to get the calculus into the pouch. The utility of this contrivance has not yet been submitted to the test of experiment, either upon the dead or living body.

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*The Morbid Anatomy of the Human Brain: being Illustrations of the most frequent and important Organic Diseases to which that Viscus is subject.* By ROBERT HOOPER, M.D. Bachelor of Physic in the University of Oxford; Member of the Royal College of Physicians of London; Fellow of the Linnæan Society; Physician to the St. Mary-le-bone Infirmary, &c. &c. With coloured Plates.—4to. Longman and Co. London, 1826.

THIS is the most beautiful specimen of morbid anatomical plates that we have ever seen, and reflects the highest credit on the professional zeal and liberality of the author: professional zeal, because no one, who is not deeply interested in the advancement of the science, would devote to these investigations the time requisite for their accomplishment; and liberal, because it is well known that works of this expensive nature never become sources of private emolument; so it is but just to pay the tribute of acknowledgment and approbation to those who are disinterested enough to undertake them.

We are happy to learn from the Preface, that it is Dr. HOOPER's intention to publish a series of engravings on a similar plan, which will comprehend delineations of the most important morbid appearances which the viscera of the human body assume in different diseases. We sincerely congratulate the public on the prospect of having this, which has long been acknowledged as a desideratum, so ably supplied; and

we are convinced that the author will receive the approbation, as he is entitled to the gratitude of his professional brethren.

To convey any adequate idea of engravings by words, is as impossible as to give a satisfactory representation of the original appearances by any verbal description. The plates, therefore, must be seen to be appreciated, and all we can do is to describe the method adopted by the author in arranging the subjects.

The diseased appearances presented by the brain and its membranes are—inflammation and its effects,—tumors,—diseased structures and unnatural appearances, without tumefaction,—morbid collections of fluids secreted between the membranes and in the cavities,—extravasated fluids. The tumors are thus described:

“ They are either,

“ 1. Aneurisma. The basilar and internal carotid arteries, or their branches, have been found aneurismal.

“ 2. Cephaloma. An organised, fungous, and vascular substance, mostly circumscribed, growing from a viscus, muscle, membrane, or nerve, and resembling the brain in appearance and feel. A cream-like fluid is easily squeezed from the cut surface. It is much less vascular than hæmatoma, and differs from it in appearance. Sometimes the natural structure of the organ is wholly destroyed, and converted into this disease.

“ 3. Chondroma. An organised, often excrescential substance, of the structure and hardness of cartilage. Tumors of this kind in the substance of the brain, though mentioned by good authorities, have not yet occurred to me; but I have often seen the glands of Pacchioni of this structure; and cartilaginous tumors in the dura mater are not uncommon.

“ 4. Hæmatoma. An organised, fungous, vascular substance, growing from a viscus, muscle, membrane, or nerve; and resembling, when cut, coagulated blood, with portions of a firmer texture, like the albuminous part of blood when solid. Sometimes the natural structure of the organ is wholly destroyed, and then the viscus is enlarged, and converted into this disease. In some instances it expands from a small peduncle, but it mostly has a broad base.

“ 5. Hygroma. A tumor formed by a collection of fluid, either serous, albuminous, or puriform, in the cellular membrane, or in a cyst. It is not uncommon to have a portion of the brain converted into a mass of cells, filled with a serous fluid. The pineal gland and the tunica arachnoides, especially about the medulla oblongata, occasionally present a circumscribed tumor which comes under this head, and hygroma often occurs as an encysted tumor in the substance of the brain.

“ 6. Melanoma. A soft, organised, fungous substance, of a black colour, mostly circumscribed and tubercular. The cut

surface is smooth, of the colour of Indian ink; and very moderate pressure separates a fluid like the pigmentum nigrum of the eye. No part of the human body, in a healthy state, bears any resemblance to this diseased structure, except the gland-like bodies about the bifurcation of the trachea, which are occasionally very black, but very different in texture: it is therefore named from its colour, by which it is immediately known.

7. Osteoma. An organised, bony, or ivory-like tumor, found in the viscera and soft parts, consisting principally of phosphate of lime and a little animal matter, mostly circumscribed and excrecential, but sometimes tubercular. This genus includes those morbid secretions, and collections of phosphate and carbonate of lime, lithate of soda, and similar hard depositions, usually called calcareous.

"There is a diseased appearance that also comes under this head, which consists of a gritty calcareous deposition. It occurs in the very substance of the brain, and in the pineal gland, and consists principally of phosphate of lime and animal matter. These depositions are not larger than small particles of saw-dust; are mostly of an irregular form and spicular, and, when minutely examined with a lens, each portion is seen imbedded in the medullary substance, and attached to a blood-vessel. I have seen a cerebellum full of these, and the whole external surface studded with small spicular and bony particles immediately under the pia matral covering.

"8. Scrofula. The structure of the part is converted into one which answers to the definition of this disease, and which is sometimes circumscribed or tubercular, but more frequently not so. Encysted scrofulous tumors are met with.

"The encysted tumors are often seen adhering to the choroid plexus, resembling animal hydatids. These are mostly very small. Some are found imbedded in the medullary substance of the brain, from which in some cases they extend into the ventricles. These sometimes acquire a great size, and are generally so closely connected with the surrounding medullary substance as to require much nicety to pare it away, in order to expose the cyst; and in doing this many vessels are torn through which nourish the cyst, and secrete its contents.

"The cyst is formed of one membrane, which cannot be separated into laminae. It is often of the thickness and texture of the dura mater, but in some remarkably thin. Those which are thick are very firm and opaque; the thinner are more delicate, beautifully transparent, and have very much the appearance of animal hydatids. The vascularity of the transparent cysts is seen by vessels carrying red blood ramifying on their surface; but the vascularity of the opaque cysts is not discernible by the naked eye.

"The contents of these encysted tumors are either a serous fluid, like that of the serum of the blood, or an albuminous fluid, or pus." (P. 12.)

The changes of structure and appearance without tumefaction are—flaccidity, firmness, pulpiness, and discoloration. The collections of fluid are either serous or purulent. The author states that he has found two ounces of a fluid, having every appearance of pus, between the dura mater and arachnoid membrane of the left hemisphere, without any vestige of inflammation of these membranes. There are fifteen plates in illustration of these various changes of structure.

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*An Essay on Headaches, and on their Cure.* By WALTER VAUGHAN, M.D. of the Royal College of Physicians in London. —8vo. pp. 252. Longman and Co. London.

Dr. VAUGHAN has selected a subject which has puzzled the greatest masters of our art. We find, in many of our most esteemed writers, incidental confessions of the perplexities with which the general discussion of the many varieties of headache is entangled. As we were aware, then, of the difficulties to be encountered, we were not unreasonable enough to expect complete success. We sat down to the perusal of Dr. Vaughan's book with the most charitable feelings, but yet with the hopes of gleaning something from his labours which might repay us for our trouble, and prove acceptable to our readers. We have been disappointed.

The Preface to the work prepared us to meet with much uninteresting matter for a professional reader, as the author apologises for the introduction of "an analysis of SAUVAGES' Account of Headaches," which he would "have omitted if some friends, not of the profession, who had neither heard before of Sauvages, nor were aware of the imperfect state of our knowledge of headaches, had not resisted the omission." For the sake also of those friends, and of others who have not studied medicine as a science, he "has entered occasionally into such digressions, and such verbal criticisms, as the medical reader must see could not have been intended for him." The work, in fact, is neither one thing nor other; neither professional nor popular. The medical reader will find much that he does not require, and the popular reader much that he cannot understand.

If we are to judge from the numerous quotations with which the volume abounds, and which are introduced in the most unconnected manner, our author must have been a determined student. He refers to a most extensive range of literature,—from the Bible to ACCUM'S "Death in the Pot." Dr. Vaughan has "never found" a patient stupid when affected with a headache: on the contrary, he has "always

thought that, if he had received a liberal education, he could perform a mental analysis well, although he could not do so without an aggravation of his symptoms." Whoever completes the task which we have achieved, of perusing, *ab initio ad finem*, Dr. Vaughan's book, will probably be troubled with headache, and yet he will not find himself well prepared for the performance of "a mental analysis."

The style of a medical writer is but of secondary importance, provided the matter with which he furnishes us is useful. The faults of Dr. Vaughan's style, however, are certainly not redeemed by the excellence of his matter: the former is remarkably diffused and rambling; the latter principally consists of facts and speculative opinions, collected from various writers, and thrown together in a very heterogeneous manner.

To present our readers with an abstract of the contents of this book, would be impossible. We might have passed it over altogether, did we not consider it incumbent upon us, as reviewers, to point out those works which do not demand attention, as well as those upon which our readers may expend a portion of their time with advantage. Dr. Vaughan has "often lamented that the second edition of a book was inferior to the first." If the present Essay should pass to a second edition, which we do not apprehend it will, it would be difficult for the author to fall into the error himself which he laments in others: we cannot conceive that a second edition of it could be more unsatisfactory than its predecessor. Dr. Vaughan is fond of quoting Horace: he cannot, however, have read "*De Arte Poetica*," with attention; or, at least, he has not with profit. The following wholesome advice must have escaped his eye:

"Sumite materiam vestris, qui scribitis, æquam  
Viribus; et versate diu, quid ferre recusent,  
Quid valeant humeri."

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*Manual of Pathology; containing the Symptoms, Diagnosis, and Morbid Characters of Diseases: together with an Exposition of the different Methods of Examination, applicable to Affections of the Head, Chest, and Abdomen.* By L. MARTINET, D.M.P. Resident Physician of the Hôtel Dieu. Translated, with Notes and Additions, by JONES QUAIN, A.B. Demonstrator of Anatomy at the Medical School, Aldersgate-street.—18mo. pp. 310. Anderson, London, 1826.

THIS little volume will be of use to the student: its extreme minuteness in the details, is its greatest fault; its extreme minuteness in size, its greatest recommendation.



The first part relates to the general method of examination applicable to different diseases, in which there is much useful information, diluted in a profusion of verbiage.

The second part treats of particular diseases, giving a brief sketch of the symptoms, diagnosis, and pathology of each. The first disease thus described is Fungus of the Dura Mater, and a general idea of the plan may be gathered from the following extract:

*“Fungus of the Dura Mater.—Symptoms:* This disease is of rare occurrence, but is not confined to any particular period of life. It may sometimes exist without occasioning any derangement of function, or, if it manifests any symptoms, they are so obscure as scarcely to indicate its existence. But after some time, probably during the progress of an old syphilitic taint, or in consequence of a contusion of the head, violent headaches occur, which may be either dull or lancinating, continued or intermittent, and occasionally accompanied by epileptic, comatose, or paralytic symptoms: at length a tumor begins to appear, the seat of which may be either at the roof or base of the brain, or sometimes in the orbit. This production is more or less hard, indolent or very painful, increases rather slowly, and exhibits a sort of pulsatory motion. It may at times be reduced altogether, or in part, within the walls of the cranium, and then we can distinctly trace the margins of the aperture through which it had escaped, which we find to be rough and irregular. Pressure, directed from above downwards, on the tumor, gives rise to paralytic or comatose symptoms, for by this means it is made to compress the brain; but, if we press it from side to side between the fingers, no particular effect is produced, or at most only a slight degree of pain, for then no impression is made on the substance of the brain. Sometimes the cerebral symptoms cease (cease) altogether after the tumor has escaped beyond the cranium.

*“The diseases with which it may be confounded.—*This affection may, in its first stage, be confounded with any of the derangements of the brain or its investments; in the second, with encephalocele, with vascular tumors of the dura mater following wounds, with abscess, with certain wens, or with aneurism of the occipital or temporal arteries.

*“Anatomical characters.—*These tumors are fibrous in their texture, sometimes crossed by enlarged blood-vessels; in some points they become softened and broken down, and contain blood effused into their substance. In some instances we find only one of them, in others several, which may be encysted, circumscribed, and more or less irregular. At first they are flattened before they escape beyond the skull, afterwards assume the form of a mushroom, the pedicle corresponding to the aperture in the cranium. The margins of the opening are eroded, and in many cases present asperities which, by pressing against the tumors, excite intense pain. (P. 120.)

The subdivisions of disease in this little volume are infinite, and such as never have been, and never can be, recognised during life. The pathology, as might be expected, is entirely French. The time will probably come when it will be thought quite as useful to distinguish diseases during life, and to prevent patients from dying, as to fill a museum with preparations made from them after death. We do not mean to undervalue morbid anatomy, but we are satisfied it is at present over-rated: we believe that a man may be intimately acquainted with all the changes of structure to be met with, and yet be ignorant of disease.

The translation seems to be well executed: the mistake in the preceding page, of course, is a typographical error.

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## COLLECTANEA.

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Floriferis ut apes in saltibus omnia libant,  
Omnia nos, itidem, depascimur aurea dicta.

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### PHYSIOLOGY.

*Effects of Hyoscyamine and Atropia.*—Dr. F. REISINGER, of Landshut, has performed some experiments with a view to ascertain the effects of Hyoscyamine and Atropia, an account of which is given in the *Edinburgh Medical and Surgical Journal*, from the *Med. et Chir. Zeitung*. The Doctor says—

Hyoscyamine, prepared from the henbane seed, I found to be an extremely-powerful substance for the dilatation of the pupil. A small drop of a solution of hyoscyamine (gr. 1 to ℥ss. of water) was introduced into the eyes of some dogs and cats; the eye was scarcely at all irritated in any case, and the pupil was so considerably widened, that, an hour after the application of the solution, only a small ring of the iris could be seen beyond the edge of the cornea; and, after three hours, the pupil appeared as large as the cornea itself, without the power of vision being diminished, or any other bad symptoms being induced, even when the solution was introduced into both eyes. After three days, the dilatation of the pupil first began to diminish, and it was not before the sixth day that the iris recovered its natural state. A drop of a solution of extract of hyoscyamus, containing five grains of the extract to half a scruple of water, produced in the same eyes a considerable irritation for the space of from five to eight minutes, which was shown by the secretion of tears, shutting of the eye-lids, rubbing of the eye-brows with the feet, &c.; and a much less complete dilatation of the pupil, which in dogs disappeared after six or eight, and in cats after twenty-four hours. As soon as we learnt by these experiments, which we frequently repeated, that the hyoscyamine did not, in its action, injure either the conjunctiva, or any of the deeper-seated organs, as, for instance, the retina, I proceeded to apply it on the human eye, and found that a drop of a solution of one grain of hyoscyamine in a drachm of distilled water, applied to the eye of a cataract patient 71 years old, produced such a dilatation of the pupil, that only a small ring of the iris was apparent. The pupil continued dilated seven days, during which time the old woman could see moderately well, and no irritation whatever was produced in any part of the eye. At another time, a drop of a solution of five grains of extract of hyoscyamus, in half a scruple of water, applied to the same eye at another time, produced a considerable burning, and only a moderate dilatation of the pupil after twelve hours. From other experiments with the hyoscyamine, we obtained nearly the same results. The hyoscyamine,

which was obtained from the stalk and leaves of the plant, irritated the eye much more, and was less efficacious than that obtained from the root.

The experiments made with the atropia, under nearly the same circumstances, produced results similar to those obtained from the hyoscyamine. The atropia prepared from the root scarcely appeared to excel that obtained from the other parts of the plant in its efficacy. Both kinds of atropia acted on the eyes of animals very powerfully, so that the iris was almost invisible; but this extreme dilatation did not continue more than two days. Although it may be necessary to make a greater number of experiments to determine which of the two substances is the most active, still there can be no doubt of the superior excellence of the narcotic bases of these plants over the extracts which are generally used. In iritis, and preparatory to the different operations for cataract, they certainly deserve to be used in preference.

Dr. Kopp recommended the extract of hyoscyamus to be introduced into the rectum previous to the operation for fistula in ano, for the purpose of dilating the gut; he also advised the extract to be used in the form of clysters, for allaying spasmodic contractions of the rectum, and in that of ointment to be applied to the mouth of the uterus for the purpose of facilitating difficult births. In all these cases, and in several others, I would suggest the substitution of the hyoscyamine and the atropia for the extracts. At any rate, these substances ought to be used under these circumstances in preference to opium, which acts with so much irritation on the mucous membranes. Whether the internal use of these new medicines be attended with such advantage remains to be determined by the result of new and careful experiments; still, judging from analogy, I think that, in spasmodic affections, their internal use is preferable to that of opium.

My own investigations into the subject are very limited, and confined to the following observations. A dog, three months old, swallowed, at ten in the morning, a grain of atropia, obtained from the root of the plant. In half an hour, the ears and tail began to hang, and the dog became inactive, surly, and sleepy. The pupils also were moderately dilated. Towards twelve the dog began to recover itself, and showed a disposition for his accustomed food; but, at one, the animal became very uneasy, moaned frequently, lay flat on the ground, and slept at intervals. Weakness, and particularly loss of muscular power, were very apparent; the power of vision was also gone, as the dog tumbled over every thing. As the whole of the body was flaccid, and not in the slightest degree tender, I supposed that the moaning was not produced by pain, but by the loss of his sight, and fear of light. At two, I took care that he should take some water and vinegar, with plenty of butter. Still the animal continued in the same state; it also now occasionally yawned; the nose was quite dry; the pupil still more dilated; and the palpitation of the heart was strong and rapid. The passage of the urine and feces was natural. At half past three vomiting of the undigested food took place; at five the dog recovered itself considerably; and at seven he was quite restored. Another dog, just of the same age, swallowed at the same time a grain of extract of belladonna. In half an hour's time, the same symptoms came on as in the other, but in three hours he was perfectly recovered. The same dose of atropia and hyoscyamine were given to some half-grown rabbits, but it did not produce the least effect on them. These animals appear to be very insensible both to the external and internal action of the substances. It is extremely curious, that, as soon as the slightest particle of these narcotic bodies was introduced into the mouth of a cat, a copious flow of saliva and of foam came on, and at the same time the animal began to chew and loll out the tongue. I conclude these remarks with a wish, that those medical men who have it in their power will give these principles a trial, and communicate the results of their observations to the public.

### *On the Structure of the Eyes of Insects.* By Mr. WILLIAM EWING, of Glasgow.

*Simple Eyes.*—These are the eyes with which we find insects provided in the first state of their existence, as well as those that are produced perfect from the egg. They differ, indeed, as to number, situation, and arrangement, in those insects, but they are identically the same: their structure is that of a double convex lens, but more convex without than they are within; they are all transparent when

cleaned, and capable of refracting light: they are of a hard substance, and change not on being taken from the insect.

*Conglomerate Eyes.*—They are exactly the same as simple eyes, being double convex lenses, each of them capable of refracting light: only they are more numerous than simple eyes, and are collected into patches, and have a common retina.

*Compound Eyes.*—Under this head are included the whole of those eyes which we find provided with a lace-like covering. I am satisfied, however, that, under this division of the subject, there are different modifications, which I shall notice separately.

*Beetle's Eyes.*—It appears to me that those eyes differ not from simple eyes of the conglomerate kind. The form indeed varies, but the structure is the same. It is spherical, and composed of a number of hexagonal apertures, filled with lenses, each of which possesses the same properties as simple eyes; and having a common retina, which is connected to the external covering, so as to exhibit the appearance that two watch-glasses would have if they were cemented together.

*Butterfly's Eye.*—This eye differs from all the insects' eyes I have examined. It consists of a ball which is orbicular, and of a dark purple colour towards the external lace-like covering; and on the other side, where the optic nerve enters, it is white and less convex. This ball occupies a circular cavity formed by the external covering and the retina, and is surrounded by a very clear gummy liquor, into which it appears to move. My way of ascertaining this was by fixing the live insect in the pliers under the microscope, and, putting a mark on the centre of the external covering, I turned the insect backwards and forwards; and I observed that, when the lace-like covering moved round, the dark spots in the eye were stationary, and could be moved from one edge of the eye to the other. Now this may either be a reflection, or it may be the dark orbicular side of the ball above mentioned, shining through the limpid gummy liquor into which it floats. There are no lenses in the lace-like covering of the eyes of this insect, but they are lined with a thin transparent membrane betwixt the external covering and coating of the eye.

The eye of the night-butterfly, or moth, has the same structure as the one just described, only it is dark when viewed in the light; but, if examined in the shade, it shines with a beautiful yellowish lustre. This is emitted from the ball of the eye after being extracted from the insect. There is a peculiarity in the eye of this insect, which I cannot find in any other I have examined: viz.—from the hexagons in the external covering proceed tubes, which convey the apertures through the dark coating of the eye. They are smallest next the ball, are hard and transparent, and appear to be of the same substance as the external covering. There are no lenses in the covering of the eye of this insect.

The next modification of compound eyes belongs to a very numerous class of insects of the fly kind, (and it is to this class chiefly I think the term can be applied:) viz. to all those which are provided with stemmata, (a kind of eyes which I shall next mention.) As I have not been able to discover the effect of these as organs of sight, I shall merely state, that, in all these appendages called compound eyes in insects having stemmata, I could never find lenses, nor any internal organisation similar to those that have them.

*Stemmata.*—These are eyes with which the greater number of bees and flies are provided, and they appear to be their real eyes. They are exactly similar to, and capable of the same properties as simple eyes: they are variously situated in various insects, but in all of them which I have tried, if they are shut up, the insect is rendered blind.

In the foregoing remarks, I have merely mentioned the result of many experiments, from which I have preserved specimens of various eyes, which prove the facts stated; and since the oculi of insects arrange themselves under three different modifications, I have suggested the three following queries, which I hope some of your learned correspondents will be able to solve:—

Query—How is vision performed in those insects of the butterfly kind, since they are not provided with stemmata, nor have lenses in the hexagonal apertures, in the external covering of their eyes?

Query—How is vision performed in those insects which we find unprovided with stemmata, but in the external covering of whose eyes we find the hexagonal apertures filled with double convex lenses?

Query—How is vision performed in those insects which we find provided with stemmata, but want lenses in their compound eyes?

(*Brewster's Edinburgh Journal of Science.*)

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PATHOLOGY.

*Perforations of the Œsophagus and Stomach.*—M. LEVEILLÉ read two cases of this kind: one was in a man, twenty-two years of age, who, six weeks before he was taken ill, had been bitten on the fingers of the right hand by a dog, which was immediately killed, without ascertaining whether it was rabid or not. The wound was quickly healed; but, six weeks after, suddenly very sharp pains came on in the right shoulder and part of the chest of the same side; a feeling of strangulation, rendering the act of swallowing very difficult, accompanied these. A large bleeding did not afford any relief. Delirium soon came on, with great agitation; the patient uttered frightful cries; the slightest touch produced the effect of an electric shock; he drank with avidity; vomited a glutinous yellow matter several times in the evening; and died in the night. On opening the body, the œsophagus, about an inch and a half above its passage through the diaphragm, had a perforation of seven or eight lines in length, the edges of which were smooth and thin, and through which an effusion had taken place into the posterior mediastinum. M. L. thinks this perforation was caused by a pustule, which, developing itself in the coats of the œsophagus, had ulcerated through them in one point.

The second case is that of a man of fifty-five years of age, who, having always enjoyed good health, experienced in the course of one year four fainting fits, which lasted only a few minutes; and for which, sinapisms to the feet, leeches to the anus, and purgatives, were used. There soon appeared symptoms of disease of the stomach, with pain after eating, want of appetite, loss of much blood per anum, prostration of strength, and wasting of the flesh. The patient was put on a milk diet. Soon after digestion invariably excited pains in the stomach. There was no swelling to be felt in the epigastric region, and there was no vomiting, but obstinate constipation. One evening, the patient suddenly experienced great pain in the hypochondrium, which increased during the night; the belly became swollen and tense; and he died in the morning. On opening the body, there was found, on the anterior surface of the stomach, near its small curvature, four fingers' breadth from the pylorus, an oval opening, the circumference of which was from eight to ten lines; but the mucous membrane was completely destroyed to a much greater extent, and from the margins of the hole several yellowish tubercles, as large as a grain of barley, projected. The stomach in other respects was sound. The left auricle of the heart had double the usual capacity; and, on the partition between the auricles, there was a tumor of an encephaloid appearance, forty-five

lines in circumference, and which probably had been the cause of the syncope.

M. L. remarks that, in both these cases, it was impossible for the most acute physician to form a diagnosis, or to predict the seat or nature of the disease. (*Archives Generales.*)

#### SURGERY.

*Removal of the Greater Portion of the Lower Jaw-bone.*—Mr. LIZARS, of Edinburgh, has recently performed this operation in a case of osteo-sarcoma. We subjoin the particulars, as related by him in the Edinburgh Medical and Surgical Journal:—

Upon careful examination of the tumour, I found it of the size of a very large orange, having a firm adhesion to the right side of the inferior maxillary bone, and extending downwards and outwards, or sacrad and peripherad, and locking the inferior to the superior maxillary bone, in consequence of its magnitude and fixed position; so that the mouth could not be opened to examine the extent of the tumour internally or mesiad. By the use of a mirror, however, I could perceive that it extended nearly two inches from the lower jaw-bone towards the body of the tongue; and on inserting the finger between the cheek and the bone, the tumour felt hard, and appeared either cartilaginous or osseous, and extended from the symphysis menti back to the angle, and occupied even a little of the ramus. The tumour felt also hard along the base of the bone, and around all its own base, but from this, outwards to its apex, became progressively softer. After careful examination and due deliberation, I replied to Dr. Scott, that the tumour appeared to be osteo-sarcoma of the lower jaw-bone, and that nothing but the entire removal of the diseased bone would eradicate the disease, and give the patient a chance of life; for in all the cases I had witnessed, where the tumour had been hammered or chiseled off the bone, the affection had returned, or rather the patient lingered out a most loathsome existence, from malignant ulceration and hectic fever.

Wednesday, the 16th of August, was appointed for the operation, on which day Dr. Scott did me the favour to be present; and, on the Monday preceding, I requested the opinion of my able friend Dr. Poole, respecting the propriety of at once removing the bone, who judiciously observed, that it was my duty to ascertain, during the operation, whether the bone was affected or not. On Tuesday the patient took a brisk purge, which operated well.

The patient being laid on a mattress placed on a table, with his head towards the window, on a pillow, I made an incision through the skin from the mastoid process of the temporal bone around the inferior or sacral aspect of the tumour, embracing at the time every portion of diseased skin, onwards to the symphysis menti. In the region of the sterno-cleido-mastoideus muscle, I made a second cutaneous incision from near the middle of the preceding, downwards or sacrad, parallel with that muscle, to the extent of two inches, in order that I might be able to insulate the tumour with more freedom. I then made a third incision from where the first began, in the region of the mastoid process of the temporal bone, across the ramus of the lower jaw-bone, and along its body to the symphysis menti, onwards for an inch to the opposite or left side. I made this last incision at once into the mouth, whenever I had got beyond the masseter muscle, and immediately made an incision along the lower jaw-bone into the substance of the tumour; and requested Drs. Duncan, Poole, and Borthwick, who were present, to examine the condition of the bone, which, on inspection, they considered healthy. I therefore proceeded to insulate the tumour, by dissecting back the integuments from its posterior aspect, holding the edge of the knife towards the tumour and trachea; but on deepening at the angle of the bone, I found the tumour formed by the bone, and perfectly incapable of being detached from it. In my attempts at this moment, the tumour burst, and discharged a glairy honey-like fluid, apparently of the mellicerous nature, and I therefore removed the loose portion of it, by cutting towards the trachea. In

this stage of the operation, a multiplicity of arteries sprang, and required to be secured,—particularly towards the angle of the bone,—and were extremely embarrassing, and difficult to be seized hold of. I now resolved on removing the bone; and proceeded by rendering it rudely clean at the symphysis, where I found the disease extended so far to the left side as to involve the four incisive teeth; I attempted to snap the bone at once with Mr. Liston's forceps, but was compelled first to use a small saw, in order to weaken it; I next did the same across the middle of the ramus, using first the saw and then the forceps, and cautiously avoiding the internal maxillary artery. I then requested my assistant, Mr. M'Crae, a very intelligent young surgeon, to elevate the bone gently at the angle, to enable me to detach it, together with what remained of the tumour, by sweeping with the scalpel, having its cutting edge towards the chin and trachea, which was soon accomplished. The lingual artery, with some others, sprang at this period; but the bone being removed, and there being an open space, they were easily secured. I shall never forget the able assistance which I received from Dr. Poole at this period. I now carefully examined every point of surface of this extensive wound, and removed, I trust, every vestige of disease. The long ends of all the ligatures being cut off, and the wound cleanly sponged, the lips were approximated as far as they would admit with thick strong ligatures, and compresses of lint, with a four-headed roller, applied. The patient was put to bed, and a draught with forty-five drops of laudanum given.

Before proceeding with the remaining detail of this interesting case, I shall make a few observations on the operation. Had the other gentlemen been as convinced as I was myself that the bone was diseased, and had I proceeded as follows, which was my original intention, the operation would have been one of the simplest in surgery; but, from the division of it into two stages, first, the attempt to remove the tumour, and save the bone, and, secondly, the ultimate removal of the bone, it was rendered one of the most complex I ever performed. I have more than once been sadly perplexed in removing tumours at the angle of the lower jaw-bone, in consequence of this bone overhanging the tumour, and obscuring the arteries; and it appears to me a subject of consideration for the operator, when large tumours are situated at the angle of the inferior maxillary bone, and burrow beneath it towards the fauces and tongue, either to secure, in the first place, the common carotid artery, or to remove a portion of the bone. In this patient, had the tumour been merely adherent to the bone, and the latter not formed a portion of the former, it would have been next to an impracticability to remove all the diseased structure without wounding more blood-vessels. I felt myself quite paralysed in removing the disease mesiad of the angle of the bone, as every incision wounded an artery, and it was scarcely possible to secure them from their depth. My intention in this operation was to remove the bone, together with the tumour, as I have described in page 45 of Part 9 of the Anatomical Plates; to proceed immediately after the upper incision had exposed the lower jaw-bone, to notch it across at the symphysis and ramus, and then to remove the bone and tumour, by cutting from the sternocleido-mastoideus muscle towards the apex of the tongue and trachea. In this way the operation would have been safe, rapid, and easy of accomplishment. In all such operations, the cutting edge of the knife should be held towards the trachea, and the tumour dissected from the region of the carotid towards the trachea, and not, as Langenbeck recommends, from the trachea towards the carotid. In the latter-case, the operator may require to secure the same artery more than once, and runs a greater risk of wounding the carotid artery and internal jugular vein; he also cannot repress, with the fingers of his left hand, these important blood-vessels so easily and so securely. In this operation, when I divided the cheek, the facial artery did not bleed; having been obliterated by its passage through the tumour, but the transversalis faciei required a ligature.

*Appearances of the Tumour*.—The conical portion, which was first removed, has a thick closely compacted cyst immediately beneath the integuments: central or interior to this, is a thick cartilaginous stratum; and still more central or interior, is a granulated surface, with some long spiculae of cartilage, forming the parietes of the sac or cyst in which the mellicerous fluid was contained.

The bone, comprehending the four incisive, together with the canine and molar teeth of the one side, has cartilaginous projections where the tumour adhered, and

distinct exostoses near the symphysis on the outer or dermal aspect, and on the inner or mesial aspect of the angle; and at all these points it cuts soft like cartilage, and the bone itself is involved in the same softened mass.

The patient did well; and the last report (dated September 2,) runs as follows:—

The wound has been daily dressed with the adhesive straps, and the flaps forming the aperture leading into the mouth can now be approximated. The gape is exceedingly small, being about the twelfth of an inch in breadth, and only an inch in length. He feels no pain in any part of the wound, and both the cut ends of the bone are covered with granulations, which have cicatrized. He can swallow any pulpy mess, as porridge, soups, broths, and minced meat; he sits out of bed, and walks about his room, and is now regular in his bowels.

*Removal of Calculi from the Bladder.*—Mr. G. BELL, in a paper in the Edinburgh Journal of Medical Science, gives the following account of an ingenious method practised by a gentleman on his own person:—

I shall only farther slightly allude to a very simple instrument, contrived by a Scottish clergyman for his own use. He had laboured for many years under enlarged and indurated prostate: symptoms of stone supervened; perpetual retention of urine, which was never passed for years without the catheter, by the eye of which several small calculi were at different times brought out. His urethra was of very large caliber, quite callous, bearing any freedom. He cut off the vesical extremity of the catheter, had it plugged up very neatly with a ball of silver, attached to a silver wire, to enable it to pass smoothly into the bladder. When introduced, the ball was withdrawn; his forefinger applied to the outer orifice of the tube, and, after discovering the quarry of stones, he removed his finger, when the sudden gush of urine in a large stream often brought one or two calculi along with it. When I saw him in Galloway, three years since, he had removed upwards of 150 in this way, and he has continued to remove many more since that time; and although it is known, and he is fully aware that he still has at least one very large stone, yet he has experienced so much relief from incessant pains at the neck of the bladder, by having removed so many small calculi, that he cannot bring himself to submit to the removal of the larger calculi by the lateral operation.

*Ectropium of the external Angle of the Eye, cured by a new Operation.* By Professor WALTHER.—The mode of cure adopted in this case differed essentially from that introduced (we believe) by Sir WILLIAM ADAMS, although in each a portion of the tarsus is removed.

An hussar officer, a healthy young man, was wounded near the temple of the left side. The wound shortly healed; but a portion of skin, and of the orbicular muscle of the eye, was lost; there remained also a projecting and unequal scar. The external angle of the eye was drawn towards the temple, about six lines from its natural position; its angular form was lost, and it had now a roundish shape. When the patient applied to Professor Walther, the deformity was considerable, and he experienced also a painful sense of tightness and extension in the temple. He could not perfectly close the eyelids: when he attempted to do so, the middle and internal angle of the lids were brought into a state of apposition, but from the middle to the external angle a division remained. The free use of the eye was also interrupted.

It had been proposed by other surgeons to divide the cicatrix,



probably with the expectation of relieving the contraction, which had previously occurred during the healing of the wound. This plan was opposed by Walther: he proposed to unite the eyelids together, beginning at a certain distance from the external angle, so as to form a new angle in the natural position. It was a question, however, how far the growth of the eye-lashes subsequently to the operation, even if they were removed before it, might prevent the union of the parts. It was to be feared, also, that some obstruction to the healing of the parts might arise from the secretion from the Meibomian glands, when the openings of their excretory ducts were removed. The day before the operation, the cilia of both eyelids were removed, by means of a pair of tweezers, as far as it was intended to attempt to unite the parts. The operation was thus performed:—

The tarsus of the under eyelid was drawn out by a pair of forceps, and about one-third of its length removed by a steady sweep of a probe-pointed bistoury with a small blade; the incision being extended about one line beyond the external angle. The same portion of the upper eyelid was removed in a similar manner. The two incisions terminated in an acute angle towards the temple. The hemorrhage was trifling. The parts were brought together by two ligatures, which were introduced through the entire substance of the upper and under eyelids, at the distance of about one line from the incised margin. Between the ligatures, which were applied near the two extremities of the wound, the parts were closed by a strip of adhesive plaster. The edges of the wound corresponded accurately at every point, and the opening and shutting of the eyelids did not disturb the parts. Considerable inflammation took place on the second day. The eyelids were much swollen, and the conjunctiva was also inflamed. The inflammation was reduced by bleeding and appropriate treatment. On the fifth day, suppuration had taken place where the ligatures had been introduced, and they were removed. From this time the pain and swelling disappeared; the wound was perfectly united throughout its whole extent; the deformity was entirely removed. The external angle of the eye was now in its natural situation, and the division between the eyelids corresponded on both sides. The patient could move the eyelids freely, and the cicatrix was not perceptible.

In this operation the excretory ducts of the Meibomian glands, or at least their openings, must have been removed, and inclosed within the cicatrix when the parts healed.

It is suggested that the inflammation which occurred might put a stop to the secretion from those glands. Walther concludes that, at all events, this case proves that the commonly received doctrine respecting *Hordeolum* and *Chalazion* is incorrect. If these diseases arise from a stoppage of the mouths of the excretory ducts of the Meibomian glands, in this patient there would have been a row of such swellings along the margins of the divided lids.

The non-appearance of the cilia is attributed to the removal of the openings in the skin through which they shoot forth; the bulbs of the hairs being behind the minute apertures within the cicatrix. It appears therefore that, for the growth of the hair as well as plants, the access of the air is necessary. Perhaps, says Professor Walther, from these facts some new plan of cure may be suggested for Dystichiasis and Trichiasis. It would be required to make use of some application which would stop up the mouths of the canals through which the cilia grow so effectually as to exclude the air, by which the subsequent growth of the eyelashes would be prevented, which not unfrequently happens when they have been plucked out for the cure of those troublesome and frequently unmanageable affections.

Professor Walther has lately performed the above operation twice. (*Journal der Chirurgie und Augen-Heilkunde*, band. 9, heft. 1, b. 87.)

*An Improved Mode of Operating for the Piles.* By Dr. J. C. ROUSSEAU.—In this Essay I propose to offer some improvements on the methods adopted for the removal of the piles by a surgical operation; the success of which has been invariable, and warranted by an experience of upwards of twenty years.

When the piles have, from long duration, as well as from a multiplicity of causes, become permanent, and have given rise to fungous excrescences around the anus, not unfrequently attended with ulcerations, hemorrhage, and fistulas, no other alternative is left to relieve the sufferer than the entire removal of the diseased tumors.

Early in my practice, I was so fortunate as to meet with several opportunities that gave me the strongest reasons to deprecate the use of the knife in a number of diseases, but more particularly in the extirpation of piles. Hemorrhages, ulcerations, loss of the substance so necessary around the anus, and the destruction or disability of the sphincter ani, were so frequently observed, that I formed the firm resolution to avoid the same evils. Indeed, I was at once satisfied that, in a majority of cases, the knife, on account of the certainty of profuse and unmanageable hemorrhage, was entirely out of the question.

The ligature of the tumors was not without inconvenience; but it appeared to me that it was defective, not in itself, but in the mode of applying it.

1. The bulk generally enclosed in the ligature was too great to produce a prompt sloughing; and the force required to tighten it sufficiently was productive of the most excruciating pain.

2. In many cases it was impossible to draw the ligature tight enough to occasion the entire death of the parts enclosed in it, without running the risk of cutting partly through the sides of the tumor, contiguous to the ligature: hence, constant pain; irritation, inflammation of the living parts, and fever, were the consequences

of the operation. Not unfrequently a second ligature, over the first, became indispensable, before the sloughing was obtained: the parts first detached receded from it, the ulceration was extensive, and the cure protracted to a great length. Yet these evils were trifling, compared to the destruction of the anus, or its contraction so as to require subsequent dilatation, or to leave the patient, for the remainder of his days, with a disease as bad, if not worse, than the former.

3. In cases attended with prolapsus of the gut, the common mode of operating by the ligature is impracticable.

To remedy these defects did not appear a very difficult task. From minor cases to more important ones, I soon satisfied myself that the pain experienced from two or three small ligatures was by no means equal to that given by a single large one; and, consequently was induced to multiply them as much as the bulk of the tumor required.

The only difficulty to be surmounted, was to pass the threads of the ligatures in such a way as to be certain of leaving nothing untied, and to repeat the passage of the needle as seldom as possible, to save pain to the patient; which was obtained by the mode we shall presently explain.

It will be found, as I have long been convinced, that the success and the promptitude of the cure depend, *ceteris paribus*, almost entirely upon the smallness of the parts enclosed in the ligatures, and the certainty of having left nothing out of them.

The mode I have adopted, and successfully pursued for many years, possesses all the advantages aimed at. It differs from others in the following respects:

1. I multiply the ligatures, and enclose in each of them as little as possible of the substance to be removed.

2. I pass two threads with one thrust of the needle, and place the ligatures as close as possible to the sound parts. By this method, one of the threads is used for one ligature, and the other for the next, and not the minutest part can possibly be left out untied; the chain of ligatures resembling the double stitch of the saddler made with two needles.

To perform this operation with ease, and prevent confusion and mistakes, I arm the needle with threads of two different colours. It is then passed through from the side of the anus to the outside of the tumor, and again from this side to the former, and so on alternately until the whole bulk has been stitched all round; observing, between each passage of the needle, to keep a distance of about one-third of an inch, or a little more, according to circumstances, on the outside, and much less relatively on the inside, and leaving behind, after every pull of the needle, a loop of about three or four inches in length.

This part of the operation over, all the loops are to be partly divided as follows:—Cut on the outside all the threads of one colour at the middle of the loops, and all the threads of the other

colour next to the anus, in the same manner. You now have evidently a number of isolated ligatures, ready to be pulled and tied closely into a knot. This can be easily and promptly done; and the smaller the portions of the tumor left between each ligature, the less force will be required, and consequently the less pain given to the patient.

All the ligatures being well secured by a double knot, the ends may be clipped off; the patient put to bed; a gentle anodyne given; and a bread and milk poultice put on the parts. It is necessary to observe, that, if the bulk of the tumor operated on be large, it would be well, as the whole of the tumor has now become insensible, to cut away a portion of it, to prevent the fœtor that must eventually result from the decaying substance, particularly during the warm season; and add to every poultice some powdered charcoal. Care, however, must be taken not to cut too close to the ligatures, lest they should slip off, and give rise to troublesome hemorrhage.

In the course of seven to ten days, all the ligatures have dropped: the dressings become very simple, and are to be managed *pro re nata*.

It may not be improper to state, that I have never seen more, and frequently less, than a teaspoonful of blood lost during the operation, from the largest tumors; and so little fever has supervened, that I do not recollect a single case in which I have been under the necessity of resorting to blood-letting, or recommending a severe diet. Indeed, in the majority of cases, confinement to bed was not rigidly enforced. (*American Med. Recorder.*)

**M. LISFRANC'S Mode of Treating Wounds of the Hairy Scalp.**  
—In wounds of the integuments of the cranium, most authors recommend the immediate reunion of the parts divided, unless the soft parts have been very much bruised and lacerated. This method often succeeds, but it as often happens that the union is only superficial: pus forms beneath, infiltrates the surrounding parts, and produces an inflammation often highly dangerous. M. L. thinks immediate complete reunion should never be attempted in any wound of the hairy scalp: his plan is to shave and carefully clean the circumference of the wound, and, if the edges are much separated, he approximates them by adhesive straps, without, however, bringing them into contact. A space of two or three lines is left between the lips; a little wedge, formed of two or three pieces of lint, is interposed, which should reach quite to the bottom, but not exactly fill it up; for otherwise it would, by compressing the edges of the wound, prevent the flow of pus, and cause the very inconvenience wished to be avoided. A compress with holes in it, covered with cerate, then a piece of lint, and a proper bandage, completes the dressing. If the lips of the wound swell and are painful, the straps should be removed, and the dressing consist of the little wedge compress, covered with an emollient poultice;

and this to be continued till every appearance of inflammation is gone. When granulations are formed, the wedge may be discontinued. This plan may be more tedious, but M. Lisfranc considers it much safer, than any other.

I.—Pierre Gindon, aged thirty-two, of good constitution, came into La Pitié, Jan. 11th, with a wound on the top of the head; two inches long, which had quite bared the bone: it had been reunited two days. He had been copiously bled.

12th.—Lips of wound slightly swollen and painful; pulse frequent and full. M. Lisfranc tore open the superficial cicatrix, separated the lips, and allowed some pus to escape. The wound was dressed as recommended above, and a large poultice applied.

14th.—All appearances of inflammation gone; suppuration established; no pain; pulse natural.

22d.—He went away quite cured.

II.—Jean Patten, aged twenty-two, of a sanguineous temperament; February 11th, had a kick from a horse, and was brought to La Pitié. There was a wound of an inch and a half in length, penetrating to the bone, on the right parieto-temporal suture; and another slight wound under the left eyebrow. This was united by adhesive straps; the other was dressed in M. L.'s way. The patient had lost a good deal of blood: he was, however, again bled, and put on low diet.

17th.—Suppuration was established, pain quite gone. The poultice was discontinued, and in a few days he left the hospital quite cured.

Many other such cases might be instanced to show that, by not bringing the lips into immediate contact, subaponeuratic inflammations are avoided. But a surgeon is not always called when the wound is fresh; it may happen that the edges of the wound are already superficially united, and have become the seat of an inflammatory strangulation, more or less intense. What is then to be done? M. L. considers making incisions in such a case very inconvenient, and thinks they should never be had recourse to till other measures have been used, and failed. Indeed, incisions made on inflamed tissues endowed with an exquisite sensibility, cause extreme pain, and make wounds difficult of healing.

Most practitioners employ general bleeding in the cases mentioned. M. BOYER, in his "*Traité de Maladies Chirurgicales*," says, "The true cause of this inflammation, and the symptoms brought on, is the puncturing or imperfect section of some nervous filament; but a disordered stomach is often added to this, and a bilious disposition. Low diet, general bleeding from the arm and feet, emollient and anodyne fomentations, vomits, when there is derangement of the intestinal canal, laxatives, and chiefly the small doses of the tartrate of antimony, quiet the symptoms and remove the inflammation." It is difficult to imagine that inflammatory strangulation of the wound would disappear under this treatment. Every one knows that general bleedings, which succeed so well in inflammations of parenchymatous organs, as the brain, lungs, &c., is of much less advantage in inflammations of membranous tissues, which are morbidly under the influence of the capillary circulation. Sometimes, when the subject is strong

and robust, and symptoms very high, we must have recourse to general before using local bleeding.

When called to a patient under such circumstances, M. Lisfranc tears asunder the lips of the wound, puts a little wedge of lint between them, and covers all with an emollient poultice between two pieces of linen; orders low diet, diluting drinks, sinapisms to the feet; if the intestinal canal is phlogosed, he gives castor-oil, or a mild lavement: but, if the belly be painful, tongue red, and thirst increased, he prescribes purgatives. It is understood that, if the gastro-enteritis is intense, it must be attacked with leeches to the epigastrium. M. Lisfranc never gives emetics: he thinks they determine too much to the head, in the necessary efforts of vomiting. If the person is strong and full of blood, he prescribes a bleeding from the arm, and immediately after fifteen or twenty leeches, which he allows to bleed for some hours. If inflammation continues next day, and the pulse is not reduced, the leeches are repeated; perhaps even the general bleeding; but the sanguineous depletions must always correspond to the strength of the patient and the violence of the inflammation. As soon as the inflammation is removed, the wound is treated in the ordinary way.

III.—M. Debele, aged sixty-eight, of good constitution, fell, on August 16th, into a cellar, and knocked his head upon the steps in his descent: he fainted, and lost a great deal of blood. He was much bruised, and a wound of more than two inches in length occupied the top of the head. The patient only applied some balsam to the wound.

On the 30th, he came to La Pitié; and, on examination, the lips of the wound were found to be unequally rugged, torn, and much swollen; they were united by a slight cicatrisation. Its circumference had at least four inches of an erysipelatous redness, and was oedematous; the slightest pressure caused excruciating pain, and made him cry out. The face was red and injected; the eyes brilliant; pulse frequent and hard; violent headache.—Venesection; fifteen leeches to each mastoid symphysis. The cicatrix was destroyed, the lips of the wound were kept apart. Ordered a large poultice; low diet, &c.

Next day, symptoms relieved; still inflammatory sloughing of the wound.—*Hirudines xxx.*

September 2d.—Pain gone; suppuration established;—and, on the 10th, he was dismissed cured.

Many similar cases might be adduced to support M. Lisfranc's treatment. In two cases, the antiphlogistic means, aided by regimen, and the mode of dressing the wound, failed; and incisions were necessarily had recourse to, which relieved the symptoms; but, as always happens, the patient was a long time being cured. (*Revue Medicale.*)

*Wound of the Heart.*—In a late meeting at the Académie Royale de Médecine, M. FERRUS read a case of wound of the heart. A man, thirty years of age, and insane, inflicted on himself a wound, in appearance very trifling, on the left side of the chest, between the fifth and sixth ribs, one inch below and outside the nipple, with a long, thin, and sharp weapon. He was admitted ten

days after at the Bicêtre. The wound was then nearly cicatrised, but very painful to the touch; pulse small and intermittent; breathing anxious. Beneath the wound a peculiar noise could be heard,—a sort of undulating crepitation, like that of a varicose aneurism. General bleeding and repeated leeching were made use of; but the respiration became every day more difficult and less free, and the patient died on the twentieth day from the injury.

On opening the body, there was found, at the part of the chest corresponding to the wound, an intimate adhesion of all the internal surface of the left lung to the pericardium: in the cavity of its sac, ten or twelve ounces of a reddish sanies, fetid, and with many discoloured fibrinous clots. The walls of the pericardium were thickened, wrinkled, and evidently inflamed; and a portion of the iron stiletto was planted in the substance of the left ventricle, and firmly wedged in its fibres. It had gone through this ventricle, and penetrated some lines into the cavity of the right ventricle.

M. Ferrus is of opinion that the cause why the man survived so severe an injury for twenty days, was the instrument remaining in the wound, and by its presence acting as a clot in moderating the hemorrhage and effusion of blood into the chest. This, in fact, had taken place gradually, and every day that the man survived it would have been possible to appreciate its progress, the beatings of the heart becoming daily more obscure and deep. It was the effusion that at last killed the patient, the heart not being at all inflamed in consequence of the wound; and that organ becoming accustomed to the presence of a foreign body penetrating it, as in cases of ossifications in the large vessels, the circulation was not, in fact, troubled but for the first days, and at last was quite regular. M. Ferrus thinks that it would have been very dangerous to attempt the extraction of the foreign body, and that the bleedings tended to prolong the patient's life. (*Ibid.*)

*Cases of Extirpation of the Ovarium.*—Dr. A. G. SMITH, of Danville, Kentucky, gives the following account of an operation of this kind:—

After putting her upon low diet, and giving aperients and alteratives, for a few days, I performed the operation on the 24th. I commenced by making an incision from the umbilicus to within an inch of the pubis. After cutting down carefully to the peritoneum, I raised it with the tenaculum, and made an incision into it sufficiently large to introduce my finger, and then enlarging it sufficiently to introduce two fingers, I finished the incision by cutting between them. The tumour showed itself immediately, with its peritoneal covering. Finding that it could not be removed through the incision while of the present size, and being unwilling to extend the latter higher up, and believing, too, that the tumour contained a fluid, though deeply seated, I made a large opening into it with the scalpel, and evacuated several pints of watery matter; when it so collapsed, that I was enabled, though not without assistance and difficulty, to get it out of the abdomen. I now found, that the attachment to the right side of the uterus was not much larger than the usual breadth of the broad ligament. The tumour appeared to be an enlargement of the whole ovary, as the fallopian tube, with its fimbriated edge, was stretched over it. I then surrounded the attachment, including the fallopian tube, with a

strong ligature of white silk, drew it very tight, and tied it; suffering both ends to remain long enough to extend several inches out of the incision. The tumour was then separated, at least three-quarters of an inch from the ligature. I then turned her over on the abdomen, (at the same time keeping in the intestines with a warm cloth,) to allow all the blood to escape from the cavity; and turning her on her back again, I took five threaded needles, and closed the external incision by the interrupted suture, taking great care to include the peritoneum in the stitches. I left the end of the ligature which included the attachment of the tumour lying out of the lower end of the incision, and secured it by a piece of adhesive plaster; when, after laying on some long pieces of adhesive plaster across the abdomen, and applying a light bandage, I placed her in bed, and gave her seventy-five drops of tinctura opii.

She soon made some efforts to vomit. I then gave fifty drops more laudanum, and, in half an hour after, two hundred per anum, which did not [at] all seem to allay the irritation of the stomach. I then introduced five grains of gum opii, as a suppository; after which, she became easy, and slept an hour. In the evening, I directed a large decoction of senna, salts, jalap, and anise seed, of which she took a wineglassful every two hours, until morning.

(The patient did well; the deep ligature was removed on the twenty-fifth day.)

The first instances of which we are aware, in which this operation was performed by a surgeon, for the removal of a diseased ovarium, are a memorial of the courage of Dr. EPHRAIM M'DOWELL, of Danville, Kentucky. His first case was in December, 1809. The female was here affected with labour-pains; and her case was taken by two physicians for pregnancy. On examination, however, per vaginam, Dr. M'Dowell found nothing in the uterus; and concluded, from consideration, that it was an enlarged ovarium. The incision was made parallel with the rectus abdominis, at the distance of about three inches, and was nine inches long. The tumour was at first too large for extraction. A ligature was put round the fallopian tube, an incision made in the tumour, and about fifteen pounds of a "dirty, gelatinous looking substance extracted. After this, the fallopian tube was cut, and the ovarium extracted, weighing seven pounds and a half. The intestines rushed out of the first opening, and remained out of the abdomen until the tumour was removed. The woman was then laid on her face, to allow the escape of the effused fluids; and the wound afterwards closed with the interrupted suture and adhesive plaster. The ligature of the tube was brought out of the lower end of the wound. In five days after this dreadful operation, the woman was found "engaged in making up her bed;" and, in twenty-five days, she returned home, a distance of sixty miles, in good health.

In the next case, the tumour was immoveably fixed; and was found adhering to the fundus uteri and to the bladder. Having opened the abdomen, however, Dr. M'Dowell made a small incision into the tumour, and removed a large amount of gelatinous matter and blood. He then closed the external wound, and the woman apparently recovered. It is stated, however, in a subsequent communication by the same author, that the swelling gradually returned, and, six years after, became as large as at the period when he operated on her. This patient, a negro woman, was sufficiently relieved, during the interval, to be able to fulfil her usual avocations.

In the third case, the tumour "adhered to the left side." Dr. M'Dowell cut from an inch below the umbilicus to within an inch of the pubis, and then enlarged the opening to the right of the umbilicus, and for two inches above it. He placed a ligature on the tube, as in the first case, and "turned out" an ovarium, which weighed six pounds. No mention is made of the manner in which the adhesions to the left side were overcome. The wound was closed as before. This patient (who was also a negress), recovered in two weeks; excepting the removal of the ligature, which was not effected till after the lapse of five weeks.

In April, 1817, Dr. M'Dowell removed, from another negro woman, a tumour of the ovary, weighing five pounds. The incision was made "near the linea alba." The ligature slipped from the fallopian tube, after its division, this organ being short and spongy; the patient, of consequence, lost a great amount of blood. Ligatures were then applied to several of the arteries individually; but this also failed, as some of them cut through. With much difficulty, a large ligature was



now put round the whole stump of the tube, and secured by stitching it in and out of the tube, at several places. This, at last, effected the purpose; and with precautions similar to those in the first case, mentioned above, the wound was closed. The patient recovered of the operation, but remained in ill health; her complaints appearing to be hysterical.

In April, 1818, the same practitioner saw another negro woman, whom he tapped four times, removing at each time a large portion of a gelatinous fluid. He found a firm substance of considerable size, with the probe, which he had introduced to break down the gelatinous masses which presented themselves in the discharge. Finding no marks of pregnancy, per vaginam, he concluded it to be an enlarged ovary. He operated by an incision on the left side. The tumour adhered, by long and slender attachments, to several of the adjacent parts. These adhesions he secured by ligatures, as several of them bled. After a process similar to those described above, the wound was closed. She died, however, on the third day; having been affected with violent pain in the abdomen, and obstinate vomiting. The peritoneum was found violently and extensively inflamed.

Hair and a bone were found in this tumour, as well as a large round perforation, of the size of a musket-ball, opening into the cavity of the abdomen.

These curious cases are described in the *Eclectic Repertory*, vol. 7, p. 242, and vol. 9, p. 546. It is certainly much to be lamented that the accounts there given of so important an operation are not more copious; and this circumstance has drawn forth comment in the same journal.

In July, 1821, Dr. NATHAN SMITH, Professor of Physic and Surgery in Yale College, extirpated an ovarium, from a lady of Vermont. It had been observed several years before, when about the size of a goose egg. It burst into the abdomen three times, twice during pregnancy, and once from a fall. At the time of the operation, it exhibited a large tumour in the right side of the abdomen; and was both moveable and capable of internal fluctuation.

The tumour was pushed up into the middle of the abdomen, and an incision, of about three inches long, made in the linea alba, from about an inch below the umbilicus. The peritoneum was not opened till the blood had ceased to flow from the first incision. The tumour was exposed and tapped, and a canula introduced. Eight pints of a dark, ropy fluid were removed. The sac was then drawn out, and separated, with the knife, from the omentum, to which it adhered. Two arteries in the omentum were tied with *leather ligatures*. The ovarian ligament was then divided, two arteries secured as before, and the ligament returned. The adhesion to the parietes of the abdomen was separated by a touch of the knife, and the use of the fingers. The sac was supposed to weigh between two and four ounces. The incision was then closed with adhesive plaster and a bandage.

No unfavourable symptoms occurred. In three weeks the patient was able to sit up and walk; and she afterwards recovered.

Of course, our readers are aware that this operation has been performed successfully by Mr. LIZARS, of Edinburgh.

## INTELLIGENCE.

### MONTHLY REPORT OF PREVALENT DISEASES.

WE have very little to say on this subject in our present Report. Fever continues prevalent to an extent somewhat greater than usual at this season; and no considerable alteration in its character has taken place since last month. The cold damp weather, which has prevailed for some weeks, has given rise to numerous catarrhal affections, and occasionally to inflammation of the air-passages of a more severe character. In one instance under our observation, a man, about forty, died of this disease at the end of six days: the mucous membrane, from the epiglottis downwards as far as it could be traced, was of a bright red colour; and in the larynx, sloughing, with effusion of blood, had taken place.

November 24th.

*Application of Lunar Caustic.*—We have been favoured, through Dr. M. HALL, with the following communication on this subject from Mr. HIGGINBOTTOM, of Nottingham.

In prosecuting my inquiry into the curative effects of the lunar caustic, I have had occasion to apply it in cases of erysipelas of the face, phagedenic ulcer of the penis, and in the purulent ophthalmia of infants. I hope soon to send you these cases in detail. In the mean time, however, I wish to observe—

1. That the lunar caustic applied to the surface in erysipelas, so as to form an eschar to the extent of one inch in breadth, on each side of the boundary of the erysipelatous inflammation, has appeared to present a complete barrier to its further extension, and rapidly to subdue the inflammation itself.

2. That the caustic applied on each side of the boundary of phagedenic ulcers of the penis, has, in like manner, checked the inflammatory and ulcerative processes.

3. That, in the purulent ophthalmia of infants, the application of the lunar caustic over the tumid eyelid, has had an almost immediate effect in subduing the disease.

The power of the lunar caustic in many diseases is, I am persuaded, not at all known; and especially its influence, under certain circumstances, in subduing inflammation. The inquiry into its various applications becomes daily more extended.

To obviate all misconception in regard to the nature and utility of the application of the caustic in such cases as I have alluded to above, I would observe, that it requires to be made with great care, and according to certain rules; and that it does not then induce either pain or ulceration. In the first instance, indeed, it would appear to affect the cuticle only, although its curative influence certainly extends to the subjacent textures. I would particularly caution my readers against applying the caustic too rashly. A severe application of the caustic is not what I recommend, and it might do harm, and so bring the remedy into undeserved disrepute. I hope to give a distinct account of the plan to be adopted in a succeeding Number.

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*Ol. Terebinthinæ in Purpura.*—We have been favoured with the following note from Dr. WHITLOCK NICHOLL:—

Sir,—In the last Number of the Medical and Physical Journal, two cases of Purpura are recorded. In the remarks which Dr. HAWKINS has appended to his case of P. Hæmorrhagica, no notice is taken of the oleum terebinthinæ as a medicine “well calculated to answer the second indication” which he mentions, and as being a remedy “eminently useful in restraining the hæmorrhage of purpura.” I first employed the Ol. Tereb. in a case of P. Hæmorrhagica in 1818, and I communicated a statement of its salutary efficacy in that case to the Association of the Dublin College of Physicians. I have subsequently published cases illustrating its efficacy in restraining the hæmorrhage of P. Hæmorrhagica, [London Med. Repos. July 1821, June 1824; Edinb. Med. Journal, October 1822;] and Mr. THOMPSON has published a case of P. Hæmorrhagica successfully treated by this remedy, [Repos. November 1823.] In the few cases of P. Hæmorrhagica which have fallen under my care, I have employed the oleum terebinthinæ with invariable success; I should, therefore, be glad to find that it had succeeded equally well in the hands of other practitioners.

I am, Sir, your obedient servant,

WHITLOCK NICHOLL.

12, Old Burlington-street; Nov. 4, 1826.

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#### Note on Vaccination.

Sir,—Having observed a few queries in Dr. GREGORY's paper on Vaccination, in your valuable Journal for November, which he wishes country practitioners to answer, I beg leave, for the Doctor's information, to state the result of my experience on the subject. I generally receive my supply of lymph from the National Vaccine Establishment, and find the *glasses* far more effectual than the *points*. The manner of using is as follows:—After slightly moistening the lymph on the glass with the smallest quantity of cold water, I make several incisions crossing each

other, and then merely keep rubbing the lancet over the incisions for about a minute, paying particular attention to the Doctor's third particular,—viz. keeping the skin perfectly tense; a circumstance I have long found absolutely necessary in vaccinating. This I find by far the most effectual plan with dry lymph.

I have the honour to be, Sir, your obedient servant,

W. THOMAS, Surgeon.

Pembroke Dock; 13th November, 1826.

#### Stammering.

Sir,—Impediments of speech are so very distressing, and so many vain professions are every day made respecting their removal, that I consider it a duty which I owe to Dr. HART, and to those afflicted with the above defect, to state that Dr. H. removed a very bad impediment of speech, of more than ten years' standing, in the case of one of my sons, and that in the course of a very few days. The process was conducted before my own eyes, and has its basis in strictly physiological principles.

I am, Sir, your most obedient servant,

JAMES JOHNSON, M.D.

Suffolk-place, Haymarket; 20th November.

*Edinburgh Journal of Medical Science.*—We have received a letter from the Editor of the Edinburgh Journal of Medical Science, and are perfectly satisfied with his explanation. We were not aware, at the time we noticed the mistake; that the proprietors of this Journal had written to him on the subject; otherwise we should not have noticed it. More importance has been given to the circumstance than it deserves.

SIR GILBERT BLANE.—We are much gratified to learn that this distinguished veteran has been elected a member of the Institute of France; a circumstance which may be regarded not only as an honour to that gentleman himself, but as highly complimentary to the medical profession in this country.

### MONTHLY LIST OF MEDICAL BOOKS.

[No books can be entered on this List except those sent to us for the purpose; as, in the list hitherto transmitted, the names of works have frequently been given as published, which have not appeared for weeks, or even months, after.]

The Morbid Anatomy of the Human Brain: being Illustrations of the most frequent and important Organic Diseases to which that Viscus is subject. By ROBERT HOOPER, M.D. Bachelor of Physic in the University of Oxford. With the Plates coloured.—4to. London, 1826.

Materia Indica; or, some Account of those Articles which are employed by the Hindoos, and other Eastern Nations, in their Medicine, Arts, and Agriculture: comprising also Formulæ, with practical Observations, Names of Diseases in various Eastern Languages, and a copious List of Oriental Books immediately connected with General Science, &c. &c. By WHITELAW AINSLIE, M.D. M.R.A.S. late of the Medical Staff of Southern India. Vol. I.—London, 1826.

Lexicon Pharmacopœium, or a Pharmacopœial Dictionary; containing the London Pharmacopœia of 1824, in Latin and English; the Chemical Decompositions; a Description of the Simples and Compounds of the Pharmacopœias of London, Edinburgh, and Dublin, with their Properties, Use, and Doses; and in which all former Names are referred to the present Pharmaceutical Nomenclature. To the whole is annexed an English Index of Technical and Domestic Terms relative to Medicines; a Table showing at one view the common and Linnæan Names; Dr. Cullen's and Mr. John Murray's Arrangement of the Materia Medica; a Dictionary of Operative Medicine; and, lastly, two serviceable Vocabularies for Translating Physicians' Prescriptions and the Pharmacopœias. Designed expressly for the Use of Students. By THOMAS CASTLE, Member of the Physical Society, Guy's Hospital.—18mo. London, 1826.

Progress of the System for the effectual Removal of Impediments in Speech, discovered by JOHN BROSTER, F.A.S.E. For the third Year.—1826.

The Use of the Chlorate of Soda, and the Chlorate of Lime. By A. G. LABARRAQUE, Pharmacien de Paris, &c. Translated by JAMES SCOTT, Surgeon.—8vo. London, 1826.

Obstetric Plate, No. I. This Plate represents a Fœtus in Utero, enveloped in the Membranes at the seven and a half Month of Gestation, with the Placenta attached to the Body, Cervix, and Os Uteri, as taken from the Subject thirty-six Hours after Death. By GEORGE JEWEL, Surgeon, Lecturer in Midwifery, &c.

✂ This Plate, which is drawn on stone, gives an extremely good representation of the parts, and is highly creditable to Mr. Jewel.

### METEOROLOGICAL JOURNAL,

From October 20th, to November 20th, 1826.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

October	Moon.	Rain gauge.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	MAX.	MIN.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			60	62	58	29.85	29.85	95	95	E	E	Cloudy	Fair	Cloudy
21			59	60	58	29.85	29.88	95	89	ESE	SSE	—	—	—
22		.27	61	63	58	29.82	29.79	92	93	S	SE	—	Rain	Rain
23		.40	60	63	56	29.78	29.82	95	95	SE	SW	Foggy	—	Starli.
24			56	63	55	29.83	29.61	93	92	WSW	SSW	—	—	—
25		.18	58	58	45	29.36	29.36	87	82	SW	W	Rain	—	Fair
26			46	52	43	29.34	29.48	84	80	WNW	WNW	—	Fair	Fine
27		.28	47	53	40	29.54	29.70	84	78	WSW	NW	—	Rain	—
28			44	54	44	29.97	30.03	81	78	WNW	W	Foggy	Fair	Foggy
29			48	54	50	30.02	29.93	84	93	WSW	W	—	Cloudy	Sm. Ra.
30		.4	50	56	47	29.99	29.94	95	95	NE	WSW	Rain	Rain	Foggy
31			50	52	43	29.97	29.91	78	83	NW	W	Cloudy	Fair	St. Rain
Nov.														
1			44	50	40	29.64	29.53	85	79	SW	NNW	Foggy	—	Starli.
2			42	50	42	29.67	29.73	83	87	N	N	Fine	—	—
3		.108	46	53	47	29.78	29.66	90	96	N	NE	—	Rain	—
4			48	48	42	29.64	29.77	98	97	ENE	ENE	Rain	Rain	Fine
5			46	50	44	29.75	29.69	97	94	ENE	NNW	Cloudy	—	Rain
6		.28	45	48	31	29.66	29.73	95	84	WNW	N	—	Cloudy	Cloudy
7			42	42	33	29.61	29.92	78	78	N	WNW	Foggy	Fine	Fine
8			37	41	33	29.97	30.00	73	78	WNW	WNW	—	—	—
9			35	43	33	30.03	30.10	84	83	N	N	—	—	—
10			35	48	46	29.97	29.78	85	96	WSW	W	—	Sm. Ra.	Sm. Ra.
11			48	53	43	29.68	29.55	97	94	WSW	SW	—	—	Fine
12		.40	45	53	36	29.54	29.40	93	83	SW	WSW	Cloudy	Cloudy	—
13			39	46	38	29.39	29.85	89	98	WSW	ESE	—	Rain	Rain
14			39	46	38	29.98	29.14	91	78	WNW	NW	—	Cloudy	Fine
15			40	46	33	29.46	29.67	82	80	WNW	WNW	—	—	—
16			35	44	43	29.84	29.86	90	80	W	S	Foggy	—	Cloudy
17		.25	46	47	38	29.79	29.97	91	90	SSE	E	—	Sm. Ra.	—
18			43	46	44	30.02	30.02	91	95	NE	NE	—	—	Sm. Ra.
19			45	47	43	30.04	30.11	83	98	NE	NNE	—	Sm. Ra.	—

The quantity of Rain fallen in the month of October, was 1 inch and 90.100ths.

### NOTICES.

Communications have been received from Mr. Professor Mackenzie, Dr. Robertson, Mr. Wood, Mr. Boyle, Mr. Anderson, Dr. MacAndrew, Mr. Kennedy, and Dr. Paul.

We shall feel much obliged to Mr. Mackenzie for the Paper to which he alludes.

We shall be glad to hear further from Mr. C. C.: his Paper in an early Number.

## APPENDIX.

CIRCUMSTANCES have induced the Editor of the Medical and Physical Journal to address the following Letter to Sir Henry Hallford, as President of the College of Physicians.

*Henrietta-street, Cavendish-square; Nov. 10th, 1826.*

SIR,—Some public discussion having taken place with regard to the line of conduct adopted by the late Censors of the College of Physicians, in the questions which have recently been agitated in the College of Surgeons, and the part which I have taken on this occasion having been represented as disrespectful towards that body, of which I am a Licentiate, I take the liberty of soliciting your attention to the following observations.

On a recent occasion, a circumstance occurred at a meeting of the Trustees of the Hunterian Museum, by which the feelings of the Licentiates were hurt, as (till it was explained) it appeared to place in a conspicuous point of view the preference given to the Fellows. That the impression produced by this occurrence was of the nature I have stated, is well known; and several letters were addressed to me upon the subject, as Editor of a Medical Journal. One of these, being more temperate than the others, I published, appending to it a note, in which I remarked that the letter proceeded upon the "assumption" that the Trustees had unlimited power to admit whom they pleased; adding, that I should like to hear what the Censors had to say in explanation. It is quite obvious that an opportunity was thus afforded to the Censors of conciliating the Licentiates, by explaining the circumstance which had given rise to the misunderstanding. A month, however, elapsed, but no communication was made; and it was not till the ensuing Number of the "Medical and Physical Journal" had been completed, and was on the eve of being struck off, that a letter was received,—not, indeed, from the Censors, but from one individual among them, who expressly stated it to be on his own part. This letter reflected on me as requiring what no "liberal" and intelligent" person would have deemed necessary; but, as it seemed intended to explain the circumstance which had prevented the Licentiates from being, in this instance, placed on the same footing with the Fellows, I was induced to stop the press for its insertion; having stated in the preceding paragraph, that, if the Censors had not the power to grant what was desired, "no impartial person" would "blame them."

But, in the remarks alluded to, and which have given so much offence to the late Censors, I commented on the questionable policy of their interfering with the Hunterian Museum at all at such a time; because I regarded their co-operation with those Surgeons whose avowed object was the abrogation of the Charter of their College, as calculated to embroil the two corporate bodies, and therefore as injudicious; as contrary to all established etiquette in the profession, and therefore as in bad taste. And, I ask, in the event of public meetings being held by the Licentiates to overthrow the authority, and destroy the Charter, of that learned body over which you preside,—I ask whether, under such circumstances, it would not be regarded as a most ungracious act, were the Council, or any other officers of the College of Surgeons, to avail themselves of any influence their official situations might accidentally give them, and to volunteer their services on the side of the Licentiates?

But, so far was I from wishing to implicate the College generally in the disapprobation bestowed upon the Censors, that I expressly stated my remarks to be applicable to the latter "alone;" adding my belief that their interference at such a juncture was condemned by the members of their own body. This belief, which I still entertain, was founded on the information of those on whom I could depend; and, for the honour of the College, I trust that the feeling is general.

It would obviously have been unfair to attribute an act of the Trustees of the Hunterian Museum, to the Censors of the College of Physicians, had not one of them thought proper to publish a full and circumstantial detail of what had passed at one of the meetings, thus claiming for himself and his colleagues the merit, and consequently entailing upon them the responsibility, of the part which they had taken in the discussions. This letter, as well as that signed "A Friend to the late Censors," appeared in the "Lancet;" a paper which few have had the boldness thus openly to countenance.

The writer of this anonymous letter asserts that my exculpation of the College, above mentioned, is a "severe imputation" upon that body, and contrary to my obligation to do every thing "in honorem Collegii;"—that is, it is held up as a violation of my oath that I should presume to say that the Censors have acted injudiciously, or that any of their brethren think so. But, in order to make his case the stronger, he has

given a quotation, with inverted commas, as my words; yet he has felt himself at liberty to alter and to strengthen the expression, converting the postulate "*we believe to be condemned*" into the simple asseveration "*is condemned*;" which, however, I regard as of no importance, farther than as it is an illustration of the spirit which pervades the whole.\*

With a view to show that their conduct on this occasion was not disapproved of by the members of the College of Physicians, the "Friend to the late Censors" quotes the opinions of two individuals,—yours, Sir, and that of the senior Censor. With regard to you, we are informed that "a statement of their conduct" was deemed "perfectly satisfactory;" but, as no part of the statement is given, and of your answer, "written by the Registrar," only the two words above quoted, it is obviously impossible to know of what nature the statement was, or how far the approval extended. One thing, however, is quite clear, that a "statement" *was* deemed necessary; a circumstance at variance with the assertion of this writer, that he has heard "of no one besides Dr. Macleod who condemns them:" for I have not the vanity to suppose that my opinion would have been regarded as sufficiently important to induce the Censors of the Royal College of Physicians to draw up a "statement of their conduct."

If you, Sir, really deemed their interference with the affairs of another corporate body, at a time when they were assailed by a disaffected party among themselves, "perfectly satisfactory," I can only regret that the opinion of so eminent an individual should in this respect be opposed to that of a large proportion of the respectable part of the profession. But if it should appear (as I have *strong* reason to believe) that Dr. Macmichael did not write as *Registrar*, and that the statement, together with the approval, had reference solely to the part which the Censors had taken with regard to the Licentiates, and to the circumstance of a Treasury minute putting it out of the power of the Trustees to admit them on the same terms as the Fellows, then it will remain for the "Friend to the late Censors" to explain on what grounds he has taken upon himself to extend your satisfaction touching one particular point into a general approval of their conduct with respect to the College of Surgeons.

But (to complete the absurdity,†) the attendance of the Censors at the Board of Trustees of the Hunterian Museum is represented by their "Friend" as a point of conscience, touching which they "swore a solemn oath," and "publicly received the Sacrament." Now, Sir, if it really was so imperative a duty, and if they have done all this for conscience sake, I cannot but think it a "severe imputation" upon you and Dr. Frampton, higher and senior officers, as well as men of more influence, to have absented yourselves from every one of these meetings, and left to the juniors the undivided honours of the whole transaction.

In the letter alluded to, it is acknowledged that the Censors were advised to send their explanation to the Medical and Physical Journal. Notwithstanding this recommendation, which sufficiently shewed the channel which you regarded as most proper for its communication, the "Friend to the late Censors" selected the "*Lancet*!" a journal teeming with abuse of the College and its members; in which, accordingly, a document, but not the "statement" appeared, the week after an illiberal attack upon that body, which I had absolutely refused to publish.

I fearlessly refer to the pages of the "*London Medical and Physical Journal*," as an index of my feelings towards the College of Physicians, and as the best proof that I have never endeavoured to create or to foster dissensions among men, whose mutual interest it is to avoid such unpleasant discussions. I beg, however, not to be misunderstood. I do not wish to exculpate myself from the charge of having censured the conduct of the late Censors, which, as a public journalist, and touching a public question, I had a right to do; but I do wish to rebut the accusation of having thereby deviated from the consistent line of conduct which I have throughout observed towards the College of Physicians as a body, and towards the profession in general.

\* This writer calls upon me to give him the names of those who condemn the conduct of the late Censors. Had I accused them, on the authority of others, of any immoral act, he would have had a right to make this demand; but, as the extent of my censure implied only a doubt of their absolute wisdom, it is too much to expect that I should obey such an unreasonable request. For me to do so would be to take dishonourable advantage of opinions expressed in the course of conversation: at the same time I am satisfied, from the character of the parties, that, were it of any importance for the Censors to be acquainted with their names, they would not be deterred from declaring themselves by the vapouring threat about exclusion from College offices, or from any dread of being regarded by this writer as "deficient in sense of moral obligation."

† These words were unfortunately omitted in the copies of this letter originally struck off; which, we fear, may have rendered the meaning less obvious.

I have addressed this letter to you, Sir, in the present form, because I have too high a respect for you, and too much regard for my own character, to think of giving it publicity through the same medium which the "Friend to the late Censors" has had the indiscretion to adopt: and I must say that I should, indeed, regard myself as deserving the "strongest reprobation," had I presumed to offer such an insult to the College of Physicians as I conceive him to have done, by selecting, as the channel of his communication, a paper—of which it would not become me to speak in the terms which it merits. Indeed, when I consider the medium through which the letters in question have been published, I feel that some apology is necessary for noticing them at all; and I certainly should not have done so had not the circumstances under which they appeared given to them somewhat of an official form; the latter containing references to various papers, which has led to the belief that it proceeds from the late Censors themselves.

I trust that, in the foregoing remarks upon the conduct of the late Censors, which the circumstances have rendered unavoidable, I have not departed from that temperance of language and fair line of argument which Gentlemen ought to adopt towards each other: and in conclusion I beg to say, that I shall not be induced, by any consideration whatever, to prolong this discussion. It would, indeed, be endless, were the Editor of a Journal liable to be drawn into a controversy with every one from whom he differed in opinion. Both sides of the question have now been stated, and those who feel any interest about it will form their own judgment on the subject.

I have the honour to be, Sir, your most obedient humble servant,

RODRICK MACLEOD,

Licentiate of the Royal College of Physicians, and  
Editor of the "London Medical and Physical Journal."

To SIR HENRY HALFORD, BART.  
President of the Royal College of Physicians.

P.S. (*Saturday, Nov. 11th.*)—I have just been informed that the anonymous letter, so frequently alluded to, has been acknowledged, in the *Lancet* of to-day, as having proceeded from one of the late Censors.—I take this opportunity of stating that it is not my intention to read, and consequently that I cannot answer, any thing which may hereafter appear in that publication.

At the same time that the above Letter was in circulation, an Address, of which the following is a copy, appeared from Dr. AGER.

(CIRCULAR.)

The London Medical and Physical Journal for September last contained a letter from an anonymous Licentiate, complaining, that the right of claiming admission, and of introducing visitors to the Hunterian Museum, was restricted to the Fellows of the College of Physicians and the Members of the College of Surgeons; and proposing, that a remonstrance should be sent by the Licentiates to the Trustees, on the supposition, that they had made the regulation. The Editor of the Journal, Dr. Macleod, observed, "if this be correct, there can be but one opinion of the transaction;" and then demanded an explanation from the Censors. Having accidentally seen these remarks, I considered it my duty to point out the error at once to the President in a letter, dated on the 13th of the same month. It was thought best to enable the Editor to correct the mistake through the medium of Dr. Chambers: who, on the 26th, wrote that "Macleod wished to be entirely impartial on the subject of the Censors, and would have been very glad of any good answer to the Licentiate's letter;" and requested the Registrar, "if there appears to Sir Henry no objection to the publication of Dr. Ager's Remarks," to send them in the course of the day for that purpose. This was communicated to me, at the President's desire, on the following morning, with a request, that I would send an explanation to the Editor as soon as possible, lest the reputation of the College should suffer from continual misrepresentations remaining uncontradicted. I therefore wrote immediately to Dr. Macleod, observing, that such explanation from the Censors appeared to me "hardly necessary; for surely every liberal and intelligent person would conclude, that the regulation did not proceed from them: however, I can have no objection to its being stated on my part, that it was one of the original conditions, comprised in a Treasury-Minute, when the Museum was presented to the College of Surgeons, which the Trustees were merely appointed to see enforced." This letter was published in the Journal for October, preceded on the same page by farther strictures on the conduct of the Censors, asserting a belief, that their "officious interference with the College of Surgeons," is "condemned by none more heartily than by the members of their own body;" calling in question "their taste and judgment in interfering in the business at all;" and yet insisting, that if they could have procured for the Licentiates the right of admission, as they have not done so, "nothing that has been said of them is

too severe, and nothing that we have said is severe enough.\* Having drawn up the following statement of facts, in the accuracy of which the two junior Censors concurred, I thought it proper to show it to Dr. Frampton, as the charge unjustly implicated him also. He at once declared, that he entirely approved of what had been done; and candidly added, that if he had not, it was his duty to have attended the meetings, and opposed it. He also agreed with us in the propriety of submitting the whole matter to the President, since an imputation was thrown upon the College rather than ourselves; and leaving it to his discretion to take any steps which he might think the interests of that body required on the occasion. This was accordingly done; and the President has replied through the medium of the Registrar, that "he thinks the statement perfectly satisfactory," and recommended its being made public. I have felt some difficulty about the best method to be adopted for that purpose. Of course, the London Medical and Physical Journal was entirely out of the question: but thinking it particularly important, that these transactions should be fully known to the Members of the College, I have determined to distribute a circular letter among them, and a few other friends. (Signed) JOSEPH AGER.

## STATEMENT OF FACTS.

When the Hunterian Museum was presented to the late Corporation of Surgeons, a Treasury-Minute of the Conditions was drawn up, and certain Trustees were appointed to see them enforced; among whom are the President and four Censors of the College of Physicians. The first condition is, that "the Collection shall be open four hours in the forenoon, two days every week, for inspection and consultation of the Fellows of the College of Physicians, the Members of the Company of Surgeons, and persons properly introduced by them; a Catalogue of the preparations, and a proper person to explain it, being at those times always in the room." The number of days of admission had been diminished, to give more time for proceeding with the Catalogue; and a general complaint was made among the Members of the College of Surgeons, that the Museum was not sufficiently open and useful to them.

At the Quarterly Meeting of the Trustees on the 6th of May last, there were present, the Duke of Somerset, Mr. Davies Gilbert, Dr. Ager, Dr. Elliotson, and Dr. Ramadge. The last gentleman suggested to the Board the propriety of making the days of admission more frequent, in which all the other Trustees concurred; but it was thought advisable, that an extraordinary meeting should be called, and the Curators summoned to attend on the 20th of May, to enable the Board to decide finally upon that subject, as well as the means of completing the Catalogue as soon as possible.

At this second meeting, besides the Trustees present at the preceding, Lord Colchester and Sir Everard Home attended; but the latter gentleman withdrew on the introduction of the Curators. Arrangements were made for expediting the preparation of the Catalogue, and it was determined unanimously, that the original conditions should be strictly enforced.

At the next Quarterly Meeting, on the 5th of August, there assembled Lord St. Helens, Sir E. Home, Dr. Ager, and Dr. Ramadge. A communication was received from a Meeting of Members of the College of Surgeons, conveying their thanks for what had been already done; and requesting, that the times of admission to the Museum should be increased, and the Licentiates of the College of Physicians, as well as other respectable Medical and Scientific persons, privileged to attend. These regulations had indeed been suggested to the Board by the Censors present at the former Meetings; but it was seen with regret, on referring to the original conditions, that the Trustees had no power to enforce them. The only arrangement then made respected the interpretation of the terms "properly introduced." A personal introduction had previously been required; but it was unanimously agreed, that a letter should be thenceforth considered sufficient, and that the regulation thus interpreted should be communicated to those Gentlemen who had applied to the Board.

This address does not appear to us to require any answer farther than may be found in our Letter. The only circumstance to which we shall allude is this: Dr. Ager has introduced Dr. Chambers's name in such a manner as seems to imply an idea that he was concerned in the paragraph which has given offence to the late Censors: we think it right to state unequivocally, that he had nothing whatever to do with it, and did not even know of it till it was published; neither, we may add, is he at all aware of this declaration on our part.

\* We request our readers to compare the above with the original passage to which it refers, No. for Oct. pages 390-1.



# INDEX

TO THE

FIRST VOLUME OF THE NEW SERIES

OF THE

## London Medical and Physical Journal.

	PAGE		PAGE
ABSORBENTS, inflammation of, treated with Lunar Caustic	228	Back, Fungous Tumor of the	208
Absorption, analysis of, Dr. Barry on	274	Belladonna, on the external application of	403
Acid, Prussic, observations on	87	Beriberi, analysis of, Mr. Hamilton on	358
Address of the Editor on commencing a new Series	1	Bladder, on Sutures in wounds of the	381
Affections of the Brain	2, 10	—, removal of Calculi from the	572
Amenorrhœa, cases of, treated with Guaiacum	543	Bilateral operation for Stone	233
Amputation at the Knee-joint, case of	89	Bile, experiments on the use of the	340
Anatomy of the Fœtal Brain, M. Tiedemann on the	364	Biographical sketch of the late Mr. J. Pearson	51
— Brain, Dr. Spurzheim on	367	Blood, analysis of Dr. Barry on	274
—, Morbid		— observations on	280
Plates of Dr. Hooper's	560	Books, Lists of, 95, 199, 295, 392, 487, 583	
Anatomical appearances in Gastritis	82	Brain, morbid appearances of, Dr. Mills on	74
Aneurism, Popliteal, remarkable case of	134	— Plates of	560
—, case of Subclavian, in which that artery was successfully tied	449	Bronchocele, Mr. Earle's case of, in which the superior Thyroid Arteries were tied	201
Animal Heat, Dr. Williams on	360	Bronchi, case of Cherry-stone in the	430
— Magnetism, Dr. Dupau on	463	Calculi, removal of, from the Bladder	572
Anus, artificial, operations for, 190, 285		Calculus removed from the female by dilating the Urethra,	214, 383, 384
Antimony, Tartarised, observations on	185	—, large, removed from a child	287
Antrum Maxillare, abscess of the	289	Carotid Artery, wound of	331
Artery, Carotid, wound of, with observations	331	Cataract, observations on	178
Arteries, use of the probe in punctured wounds of	481	Caustic, Lunar, application of, in Erysipelas, &c.	582
Artificial Pupil, observations on	38	Censors of the Royal College of Physicians, observations on their conduct	390
Army, qualifications required of medical officers in the	195	Cherry-stone in the Bronchi, case of	430
Arsenic, Dr. Christison on poisoning with	457	Chorea, case of	342
—, Dr. Venables on ditto	508		
Associated Practitioners, their Report	197		
Atrophy, its effects	566		

# INDEX.

	PAGE		PAGE
Coma following Salivation cured by reproducing Ptyalism	231	Heart, cases of disease of the	119, 219, 221
Cupping, Mr. Kennedy on	198	— feigned diseases of	290
Dental Surgery, Mr. Koecker's	372	— wound of	578
Diet, Dr. Paris on, analysis of	157, 263	Hernia, Strangulated, cases of	15, 18, 23, 24, 26, 444, 446
Digestion, Dr. Smith on	177	Herpes Zoster, treated by the application of Caustic	233
Diseases, Reports of prevalent	92, 194, 291, 386, 483, 581	Human life, duration of, in France	88
Distortions of the Spine, an account of the methods of treating, in Paris, with engravings	489	Hunterian Museum, observations on the admission to	292, 390
Documents relative to Vaccination	143	Hydrocephalus, extraordinary case of	86
Domestic Medicine, analysis of Dr. Graham's	277	Hydrocyanic Acid, observations on	87
Duration of human life in France	88	Hydrophobia, analysis of Mr. White on	68
Ectropium, new operation for	572	— case of, by Mr. King	347
Epiglottis, destruction of	91	— on the communication of	374
Ergot, observations on	87	Hyoeyamine, its effects	566
Erysipelas, Dr. Stevenson on	362	Inflammation of the Absorbents, treated with Lunar Caustic	228
— Mr. Travers' cases of	439	— Veins, observations on	33
— application of Lunar Caustic in	582	Injuries of the Head, cases of	210
Experiments on animals, by injecting putrid matters	477	— Thorax	224, 528
Exposition of the present state of the Medical Profession in Britain	369	Instrument for detecting animal matter in the atmosphere	198
Extirpation of the Ovary	91, 578	Institution, Medical Provident, of Scotland	486
— Testicle	482	Intestines, Dr. Hewett on ulceration of the	97
Eye, remarks on representations of the	38	Iris, Dr. Watson on inflammation of the	359
Eyes of insects, their structure	567	Irritation, analysis of Mr. Travers on	54
Feet, perspiration of the, M. Lobstein on	180	— local, case of, by Mr. Earle	428
Femur, cases of fractured	312	Jaw, amputation of, Dr. McClellan on	188
Fever, Dr. Hewett on	97, 241, 421, 538	—, lower, removal of the	570
— cases of, with remarks, by Dr. Chambers	351	Journals, Meteorological, 1896, 1900, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 2682, 2683, 2684, 2685, 2686, 2687, 2688, 2689, 2690, 2691, 2692, 2693, 2694, 2695, 2696, 2697, 2698, 2699, 2700, 2701, 2702, 2703, 2704, 2705, 2706, 2707, 2708, 2709, 2710, 2711, 2712, 2713, 2714, 2715, 2716, 2717, 2718, 2719, 2720, 2721, 2722, 2723, 2724, 2725, 2726, 2727, 2728, 2729, 2730, 2731, 2732, 2733, 2734, 2735, 2736, 2737, 2738, 2739, 2740, 2741, 2742, 2743, 2744, 2745, 2746, 2747, 2748, 2749, 2750, 2751, 2752, 2753, 2754, 2755, 2756, 2757, 2758, 2759, 2760, 2761, 2762, 2763, 2764, 2765, 2766, 2767, 2768, 2769, 2770, 2771, 2772, 2773, 2774, 2775, 2776, 2777, 2778, 2779, 2780, 2781, 2782, 2783, 2784, 2785, 2786, 2787, 2788, 2789, 2790, 2791, 2792, 2793, 2794, 2795, 2796, 2797, 2798, 2799, 2800, 2801, 2802, 2803, 2804, 2805, 2806, 2807, 2808, 2809, 2810, 2811, 2812, 2813, 2814, 2815, 2816, 2817, 2818, 2819, 2820, 2821, 2822, 2823, 2824, 2825, 2826, 2827, 2828, 2829, 2830, 2831, 2832, 2833, 2834, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 2842, 2843, 2844, 2845, 2846, 2847, 2848, 2849, 2850, 2851, 2852, 2853, 2854, 2855, 2856, 2857, 2858, 2859, 2860, 2861, 2862, 2863, 2864, 2865, 2866, 2867, 2868, 2869, 2870, 2871, 2872, 2873, 2874, 2875, 2876, 2877, 2878, 2879, 2880, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2894, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, 2909, 2910, 2911, 2912, 2913, 2914, 2915, 2916, 2917, 2918, 2919, 2920, 2921, 2922, 2923, 2924, 2925, 2926, 2927, 2928, 2929, 2930, 2931, 2932, 2933, 2934, 2935, 2936, 2937, 2938, 2939, 2940, 2941, 2942, 2943, 2944, 2945, 2946, 2947, 2948, 2949, 2950, 2951, 2952, 2953, 2954, 2955, 2956, 2957, 2958, 2959, 2960, 2961, 2962, 2963, 2964, 2965, 2966, 2967, 2968, 2969, 2970, 2971, 2972, 2973, 2974, 2975, 2976, 2977, 2978, 2979, 2980, 2981, 2982, 2983, 2984, 2985, 2986, 2987, 2988, 2989, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000, 3001, 3002, 3003, 3004, 3005, 3006, 3007, 3008, 3009, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020, 3021, 3022, 3023, 3024, 3025, 3026, 3027, 3028, 3029, 3030, 3031, 3032, 3033, 3034, 3035, 3036, 3037, 3038, 3039, 3040, 3041, 3042, 3043, 3044, 3045, 3046, 3047, 3048, 3049, 3050, 3051, 3052, 3053, 3054, 3055, 3056, 3057, 3058, 3059, 3060, 3061, 3062, 3063, 3064, 3065, 3066, 3067, 3068, 3069, 3070, 3071, 3072, 3073, 3074, 3075, 3076, 3077, 3078, 3079, 3080, 3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3090, 3091, 3092, 3093, 3094, 3095, 3096, 3097, 3098, 3099, 3100, 3101, 3102, 3103, 3104, 3105, 3106, 3107, 3108, 3109, 3110, 3111, 3112, 3113, 3114, 3115, 3116, 3117, 3118, 3119, 3120, 3121, 3122, 3123, 3124, 3125, 3126, 3127, 3128, 3129, 3130, 3131, 3132, 3133, 3134, 3135, 3136, 3137, 3138, 3139, 3140, 3141, 3142, 3143, 3144, 3145, 3146, 3147, 3148, 3149, 3150, 3151, 3152, 3153, 3154, 3155, 3156, 3157, 3158, 3159, 3160, 3161, 3162, 3163, 3164, 3165, 3166, 3167, 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3180, 3181, 3182, 3183, 3184, 3185, 3186, 3187, 3188, 3189, 3190, 3191, 3192, 3193, 3194, 3195, 3196, 3197, 3198, 3199, 3200, 3201, 3202, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3227, 3228, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240, 3241, 3242, 3243, 3244, 3245, 3246, 3247, 3248, 3249, 3250, 3251, 3252, 3253, 3254, 3255, 3256, 3257, 3258, 3259, 3260, 3261, 3262, 3263, 3264, 3265, 3266, 3267, 3268, 3269, 3270, 3271, 3272, 3273, 3274, 3275, 3276, 3277, 3278, 3279, 3280, 3281, 3282, 3283, 3284, 3285, 3286, 3287, 3288, 3289, 3290, 3291, 3292, 3293, 3294, 3295, 3296, 3297, 3298, 3299, 3300, 3301, 3302, 3303, 3304, 3305, 3306, 3307, 3308, 3309, 3310, 3311, 3312, 3313, 3314, 3315, 3316, 3317, 3318, 3319, 3320, 3321, 3322, 3323, 3324, 3325, 3326, 3327, 3328, 3329, 3330, 3331, 3332, 3333, 3334, 3335, 3336, 3337, 3338, 3339, 3340, 3341, 3342, 3343, 3344, 3345, 3346, 3347, 3348, 3349, 3350, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3360, 3361, 3362, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3371, 3372, 3373, 3374, 3375, 3376, 3377, 3378, 3379, 3380, 3381, 3382, 3383, 3384, 3385, 3386, 3387, 3388, 3389, 3390, 3391, 3392, 3393, 3394, 3395, 3396, 3397, 3398, 3399, 3400, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3418, 3419, 3420, 3421, 3422, 3423, 3424, 3425, 3426, 3427, 3428, 3429, 3430, 3431, 3432, 3433, 3434, 3435, 3436, 3437, 3438, 3439, 3440, 3441, 3442, 3443, 3444, 3445, 3446, 3447, 3448, 3449, 3450, 3451, 3452, 3453, 3454, 3455, 3456, 3457, 3458, 3459, 3460, 3461, 3462, 3463, 3464, 3465, 3466, 3467, 3468, 3469, 3470, 3471, 3472, 3473, 3474, 3475, 3476, 3477, 3478, 3479, 3480, 3481, 3482, 3483, 3484, 3485, 3486, 3487, 3488, 3489, 3490, 3491, 3492, 3493, 3494, 3495, 3496, 3497, 3498, 3499, 3500, 3501, 3502, 3503, 3504, 3505, 3506, 3507, 3508, 3509, 3510, 3511, 3512, 3513, 3514, 3515, 3516, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3525, 3526, 3527, 3528, 3529, 3530, 3531, 3532, 3533, 3534, 3535, 3536, 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, 3549, 3550, 3551, 3552, 3553, 3554, 3555, 3556, 3557, 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 3598, 3599, 3600, 3601, 3602, 3603, 3604, 3605, 3606, 3607, 3608, 3609, 3610, 3611, 3612, 3613, 3614, 3615, 3616, 3617, 3618, 3619, 3620, 3621, 3622, 3623, 3624, 3625, 3626, 3627, 3628, 3629, 3630, 3631, 3632, 3633, 3634, 3635, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3643, 3644, 3645, 3646, 3647, 3648, 3649, 3650, 3651, 3652, 3653, 3654, 3655, 3656, 3657, 3658, 3659, 3660, 3661, 3662, 3663, 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671, 3672, 3673, 3674, 3675, 3676, 3677, 3678, 3679, 3680, 3681, 3682, 3683, 3684, 3685, 3686, 3687, 3688, 3689, 3690, 3691, 3692, 3693, 3694, 3695, 3696, 3697, 3698, 3699, 3700, 3701, 3702, 3703, 3704, 3705, 3706, 3707, 3708, 3709, 3710, 3711, 3712, 3713, 3714, 3715, 3716, 3717, 3718, 3719, 3720, 3721, 3722, 3723, 3724, 3725, 3726, 3727, 3728, 3729,	

# INDEX.

	PAGE		PAGE
List of the Lecturers in London	388	Phthisis, on the prevention of	393
Lists of Books, 95, 199, 295, 392,	487, 583	Phymosis, operation for	90
Lithotomy, cases of, by MM.		Physicians, Lectures at the Col-	93
Dupuytren and Sanson	233	lege of	
Malformation of the Rectum	204	Physiology, analysis of Dr. Bos-	276
Medical profession, present state	369	tock's System of	276
of		Piles, improved operation for the	574
and Physical Journal, pla-		Placenta, new method of extract-	289
giarism from	483	ing the	
Essays, Dr. Hall's, review	547	Popliteal Aneurism, Mr. Bell's	134
of		case of	
Medicine, analysis of Dr. Gra-	277	Polypus of the Uterus, on the	432
ham's Domestic		separation of	
Melânosia, analysis of Mr. Faw-	271	Pregnancy, new species of extra-	80
dington on		uterine	
Meteorological Journals, 96, 200,	296, 392, 488, 584	Prevalent Diseases, Reports of	581
the 92, 194, 291, 386, 483,		the	
Monster, in whom the extremi-	279	Prize question	95
ties were wanting		Probe, use of the, in wounds of	481
Morbid appearances of the Brain,	74	Arteries	
analysis of Dr. Mills on		Prussic Acid, observations on	292
Morphia, Acetate of, its use in	479	Pupil, artificial, remarks on	38
Uterine Hemorrhage		Purpura, cases of	414
Museum, Hunterian	390	Ptyalism, cases of Coma follow-	231
Mustard Seed, analysis of Mr.		ing the sudden suppression of	
Cooke on	174		
Nervous Circle which connects		Qualifications required in medi-	195
the Voluntary Muscles with the	44	cal officers of the army	
Brain		Question, prize	95
Neuralgia, case of, cured with	545		
Carbonate of Iron		Rectum, malformation of	204
Note respecting the case of James	195	Removal of the Lower Jaw	570
White		Reports of prevalent Diseases, 92,	194, 291, 386, 483, 581
Nux Vomica, observations on	186	the Associated Gene-	197
		ral Practitioners	
Observations on the Brain and	85	Répertoire général d'Anatomie,	78, 553
Nerves in Monsters		&c. analysis of	
frequency of		Representations of the Eye, re-	38
Follicular Ulceration of the In-	97, 241	marks on	
testines in Fever		Respiration, Dr. Williams on	360
Œsophagus, perforations of the	569	Rheumatism, cases of, by Dr.	
Officers of the College of Physi-	485	Chambers	12, 114
cians for the year 1826-7		by Dr.	
Oleum Terebinthinæ in Purpura	582	Macleod	14
Operation for the Piles, improved	574	on Camphor in	377
Ophthalmia, Mr. Mackenzie on	317	of the Heart, case of,	379
analysis of Mr.		cured by Acupuncture	
Wardrop's paper on	356	Recto-vesical operation for the	233
Ovarium, extirpation of	91, 578	Stone, cases of	
attempt-			
ed by Dr. Granville	141	Salivation, cases of Coma follow-	231
		ing	
Pathology, M. Martinet's Manual	564	Scalp, M. Lisfranc's method of	526
of		treating wounds of the	
Phagedenic Ulceration, cases of,	122, 204	Sloughing Ulceration, cases of,	122, 132
Phlebitis, observations on	374	Snails an article of food	92
		Specific properties of medicines,	148
		observations on	

# INDEX.

	PAGE		PAGE
Spina Bifida, case of, cured by		Ulceration, Follicular, Dr. Hewett	
puncture . . . . .	89	on . . . . .	97, 241
Stammering, note on . . . . .	583	—, Sloughing, Mr. Travers'	
Stethoscope, Dr. Scudamore on,		cases of . . . . .	122
analysis of . . . . .	77	—, Mr. Green's ditto . . . . .	129
Strangulated Hernia, 15, 18, 23, 24,		—, Mr. Rose's ditto . . . . .	132
26 . . . . .		—, Mr. Babington's	
Surgeons, College of, their new		ditto . . . . .	204
regulations . . . . .	386	Ununited Fracture, case of, cured	
Surgery, analysis of Mr. A. C.		by excision of the ends of the	
Hutchison on . . . . .	166	bone . . . . .	288
Suture in wounds of the Bladder	381	Urinary Calculus, cases of, ex-	
Sympathy, analysis of Dr. Alison		tracted from the female, by	
on . . . . .	252	dilatation of the urethra . . . . .	214
Syphilis treated with scruple doses		Uterine Hemorrhage, use of Ace-	
of Calomel . . . . .	436	tate of Morphia in . . . . .	479
—, treatment of, without		—, case of, un-	
Mercury . . . . .	482	successfully treated by Trans-	
Tartarised Antimony, observa-		fusion . . . . .	139
tions on . . . . .	185	Uterus wanting . . . . .	278
Testicle, cases of diseased, 209, 297,		—, Polypus of, separation of . . . . .	432
446, 521 . . . . .		Vaccination, note on . . . . .	582
— extirpation of . . . . .	482	—, documents relative	
Thermometer, new division of the	294	to . . . . .	143
Thigh-bone, remarks on the want		—, Dr. Maraschim's ex-	
of union in the neck of the . . . . .	504	periments on . . . . .	285
Thorax, cases of injury of, with		—, Dr. Gregory on . . . . .	410
remarks . . . . .	528	Varicelous Epidemic in Sweden . . . . .	283
Tracheotomy, case of, for the re-		Viscera, case of transposition of	
moval of a foreign body . . . . .	480	the . . . . .	345
Transactions of the Medico-Chi-		White Mustard Seed, analysis of	
rurgical Society of Edinburgh,		Mr. Cooke on . . . . .	174
analysis of . . . . .	356, 457	Wound of the Heart . . . . .	578
Transfusion, unsuccessful case of, 139		Yellow Fever, observations on . . . . .	187
—, observations on the			
above . . . . .	293		
Tumor, Fungous, on the Back . . . . .	208		
Turpentine, Dr. Wood on the use			
of, in a particular condition of			
Fevers . . . . .	182		

CRITICAL ANALYSES . . . . .	Pages 54, 157, 252, 356, 453, 547
COLLECTANEA . . . . .	85, 177, 278, 374, 471, 566
INTELLIGENCE . . . . .	92, 194, 285, 387, 483, 581
METEOROLOGICAL REGISTER . . . . .	96, 200, 296, 392, 488, 584

# NAMES OF AUTHORS,

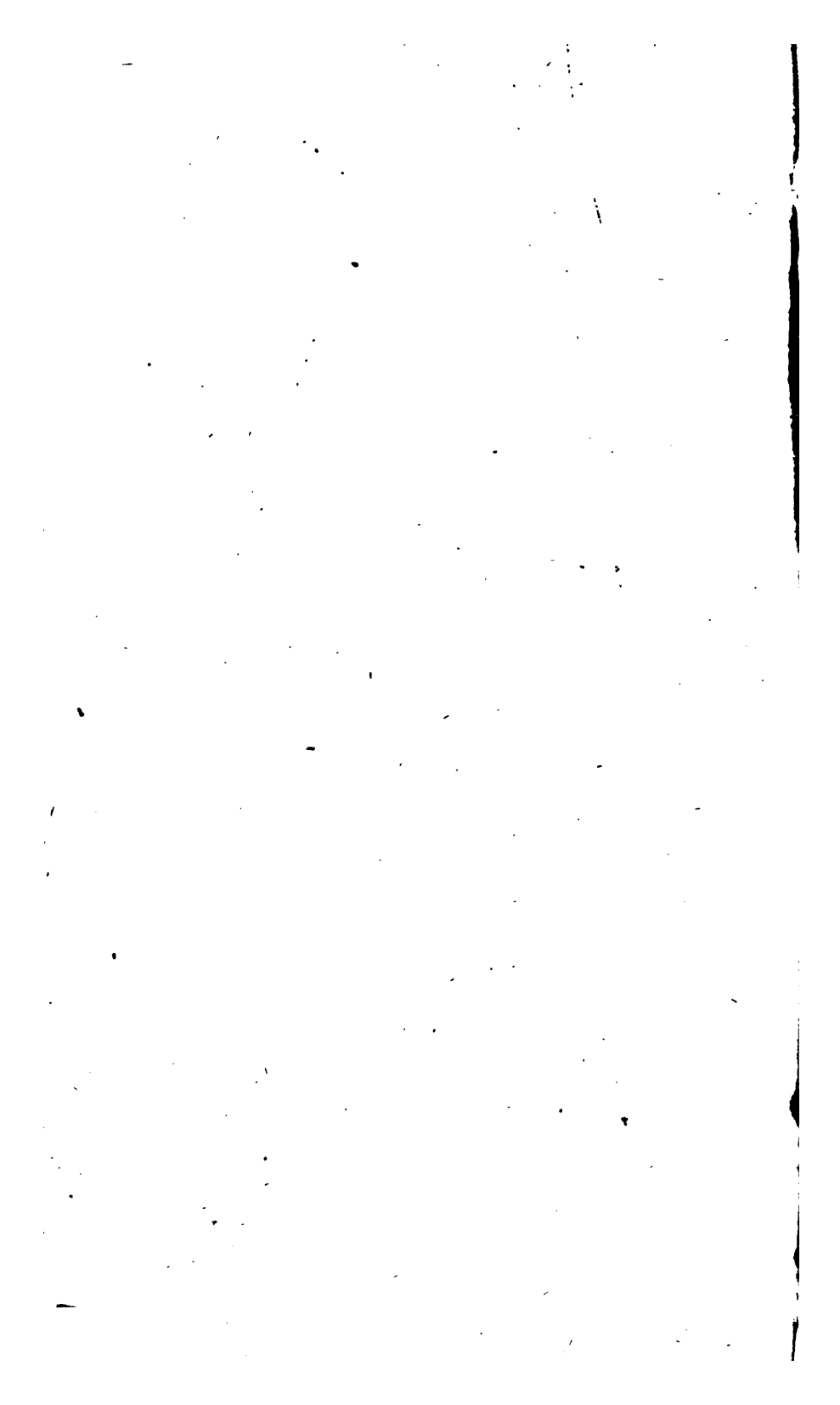
*Of whose Works, Observations, &c. either a detailed Account, or more or less general View, is given in the present Volume.*

	PAGE
AGER, Dr. his letter to the Editor . . . . .	391
ALLAN, Mr. on Specifics . . . . .	148
ALISON, Dr. analysis of his paper on Sympathy . . . . .	252
ANDRAL, M. ( fils ) on Chronic Gastritis . . . . .	82
BABINGTON, Mr. on Sloughing Ulceration . . . . .	204
BARRY, Dr. analysis of his Researches on the Blood, Absorption, &c. . . . .	274
BAYLE, M. on Putrid Fever . . . . .	471
BELL, Mr. C. on the Nervous Circle . . . . .	44
— case of Popliteal Aneurism . . . . .	134
— cases illustrative of the treatment adopted at the Middle-	
sex Hospital in Fractures of the Femur . . . . .	312
— cases of Injury of the Thorax, with remarks . . . . .	224, 528
BOSTOCK, Dr. analysis of his System of Physiology . . . . .	276
BOYLE, Mr. case of Hernia . . . . .	23
— cases of Syphilis treated with scruple doses of Calomel . . . . .	436
BLACK, Dr. on Fever, review of . . . . .	453
BRESCHET, M. on a new species of Extra-uterine Pregnancy . . . . .	80
BRODIE, Mr. cases of Hernia . . . . .	24, 95
— case of Fungous Tumor on the Back . . . . .	208
— case of Disease of the Testicle . . . . .	209
— Paper, with Cases, on the Testicle . . . . .	297, 521
CHAMBERS, Dr. case of Cerebral Affection . . . . .	5
— cases of Rheumatism . . . . .	12, 144
— Fever, with remarks . . . . .	351
— Purpura . . . . .	419
CHEVALIER, Mr. case of Urinary Calculus removed from the Female by	
dilating the Urethra . . . . .	214
— on the external application of the Extract of Belladonna . . . . .	304
CHRISTISON, Dr. on Poisoning with Arsenic, &c. . . . .	457
DENDY, Mr. case of Rupture of the Linea Alba . . . . .	192
DUPAU, Dr. review of, on Animal Magnetism . . . . .	463
DUPUYTREN, Mr. cases of Bilateral Operation for Stone . . . . .	241
— case of successful Operation for Subclavian Aneurism . . . . .	449
EARLE, Mr. case of Bronchocele, in which the superior Thyroid Arteries	
were tied . . . . .	201
— case of Malformation of the Rectum . . . . .	204
— diseased Bone removed from the Thigh . . . . .	428
FAWDINGTON, Mr. analysis of his case of Melanosis . . . . .	271
GONDRET, Dr. on Cataract . . . . .	178
GRANVILLE, Dr. his instrument for detecting animal matter in the	
atmosphere . . . . .	198
— case in which extirpation of Ovarian Tumors was attempted . . . . .	141
— documents relative to Vaccination . . . . .	143
GREEN, Mr. cases of Sloughing Ulceration . . . . .	129
— case of Strangulated Ventral Hernia . . . . .	444
GREGORY, Dr. on Vaccination . . . . .	410
GUTHRIE, Mr. observations on Inflammations of Veins . . . . .	33
HALL, Dr. MARSHALL, review of his Medical Essays . . . . .	547
HAMILTON, Mr. analysis of his paper on Beriberi . . . . .	358
HAWKINS, Dr. case of Cerebral Affection . . . . .	7
— Nervous Affection . . . . .	221
— cases of Purpura Hemorrhagica . . . . .	414
HEWETT, Dr. his remarks on Fever . . . . .	97, 241, 421, 538
HIGGINBOTTOM, Mr. cases of Inflammation of the Absorbents, treated	
by the application of Caustic . . . . .	228
HOOPER, Dr. his Plates of the Brain . . . . .	560
HUTCHISON, Mr. A. C. on Surgery, analysis of . . . . .	166
— case of Imperforate Anus . . . . .	285
HUNTER, Mr. case of Strangulated Exomphalos . . . . .	446

### NAMES OF AUTHORS.

JEFFREYS, Mr. cases of Fractured Spine	28, 30, 31
Injury of the Head	210
Disease of the Testicle	446
JEWEL, Mr. case of unsuccessful Transfusion	139
cases of Amenorrhœa successfully treated with Guaiacum	543
KING, Mr. on Spurred Rye	87
KORCKER, Mr. his Dental Surgery	372
LATHAM, Dr. P. M. case of Cerebral Affection	2
LOBSTEIN, M. on Kirronose	80
on Sweating of the Feet	180
MAC ANDREW, Dr. case of Chorea	342
MACKENZIE, Mr. Professor, remarks on the Eye	38
, on Ophthalmia	317
MACLEOD, Dr. cases of Rheumatism	14
Coma following the sudden suppression of Ptyalism	231
MACMICHAEL, Dr. cases of Diseases of the Heart	119
MARTINET, Dr. his Pathology	564
MAYO, Mr. H. experiments on the use of the Bile	340
remarks on the Want of Bony Union in the Neck of the	
Thigh-bone	504
MC'CLELLAN, Dr. on Amputation of the Jaw	188
MILLS, Dr. on the Brain, analysis of	74
NICHOLL, Dr. W. on Phthisis	393
his note on the Ol. Terebinthinæ in Purpura Hemorrh.	582
PARIS, Dr. on Diet, analysis of	157, 263
PEARSON, Mr. J. Biographical Sketch of	51
QUAIN, Mr. his translation of Martinet's Pathology	564
RECAMIER, Dr. (of Paris,) case of Cerebral Affection	10
ROSE, Mr. cases of Sloughing Ulceration	132
case of Transposition of the Viscera	345
Compound Fracture, in which a bitter infusion was	
used as a lotion	438
SANSON, M. cases of Lithotomy	230
SCUDAMORE, Dr. on the Stethoscope, analysis of	77
SHAW, Mr. case of Hernia	18, 26
Injury of the Thorax	227
note on Mr. King's case of Hydrophobia	350
account of the Methods of treating Curvatures of the Spine	
adopted in Paris	489
SMITH, Dr. NATHAN, on Amputation at the Knee-joint.	89
on Extirpation of the Ovarium	91
on Digestion	177
SPURZHEIM, Dr. his Anatomy of the Brain	367
Illustrations of Phrenology	369
STEVENSON, Dr. on the Contagious Nature of Erysipelas	362
STONE, Mr. on the separation of the Neck of Polypus of the Uterus	432
TRIEDMANN, M. on the Brain and Nerves in Monsters	85
TRAVERS, Mr. on Constitutional Irritation, critical analysis of	54
case of Strangulated Hernia	15
cases of Sloughing Ulceration	122
case of Wound of the external Carotid Artery	331
cases of Traumatic Erysipelas	439
TWEEDALE, Mr. his note respecting the case of James White	195
VAUGHAN, Dr. notice of his Essay on Headaches	563
VENABLES, Dr. on the Detection of Arsenic and Corrosive Sublimates	508
WARDROP, Mr. analysis of his paper on Ophthalmia	356
WATSON, Mr. on Inflammation of the Iris	359
WEBSTER, Dr. his case of Cherry-stone in the Bronchi	430
WHITE, Mr. on Hydrophobia, analysis of	68
WILLIAMS, Dr. on Respiration and Animal Heat	360
WOOD, Dr. on Oil of Turpentine in a particular condition of Fever	182
YOUNG, Dr. case of Disease of the Heart	219











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*Received October 6, 1906*